

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 2394.—Vol. LI.

LONDON, SATURDAY, JULY 9, 1881.

WITH [SUPPLEMENT.] PRICE SIXPENCE PER ANNUM, BY POST £1 4s

M. JAMES H. CROFTS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER.
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negotiated in Stocks and Shares not having a general market value.
Every Friday a general and reliable List issued (a copy of which will be forwarded regularly on application), containing closing prices of the week.

MINES INSPECTED.
BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTELL.

SPECIAL DEALINGS in the following, or part:—
30 S. Indian Gold, £2.
50 Almaden, 8s. 3d.
50 Carnarvon Cop., 19s.
50 Devon Con., £9 15s.
50 Derwent, £1 10s.
50 East Crebhor, 5s. 3d.
50 East Caradon, 17s. 6d.
50 E. Roman Grav., 17s. 6d.
50 East Van, £1 8s. 9d.
50 E. W. Rose, off. wtd.
50 Frontino, £4.
50 Glenrock, £1 1/2.
50 Glenroy, 9s.
50 Grogwinion, £2 10s.
50 Groghof, 11s. 3d.
50 Kingston Down, £1 13s.
50 Javali, 5s.
50 Leadhills, £2 2s. 6d.
50 Marke Valley, £1 6s.
50 North D'Eresby.
50 Nouv. Monde, £1 3s. 9d.
50 N. Fenstruthal, £1 10s.
50 Pandora, 12s. 6d.
50 Polrose, offer wanted.
50 Port Phillip, 8s.
50 Potosi, 28s. 9d.
50 Prince of Wales.
50 Parys Copper.
50 Pestarens, 6s. 6d.
50 Ruby, £7 1/2.
50 Richmond, £16 1/2, x.d.
50 Roman Grav., £12 3s.
50 So. Devon, £2 1s. 3d.
50 S. Indian Gold, £2.
50 S. Condurow, £9 16s.
50 South Darren, £1 10s.
50 So. E. Wymad, £1 12s.
50 S. Fenstruthal, 10s. 6d.
50 Tinker. Gt. Con., 12s.
50 Tin Hill, 30s.
50 United Van Consols.
50 Glyn, 7s.
50 Ditto, pref., 15s.
50 Walkham United, 10s.
50 paid, 7s.
50 West Phoenix, £1 1/2.
50 Wheel Crebhor, £4.
50 West Kitty, £4 1/2.

* * SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

BUSINESS in CAMBRIAN MINE Shares,
RAILWAYS—SPECIAL BUSINESS.
FOREIGN BONDS—SPECIAL BUSINESS.
AMERICAN STOCKS AND SHARES—SPECIAL BUSINESS.
Fortnightly accounts opened on receipt of the usual cover in these and all Stock Exchange Securities.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.

INDIAN GOLD MINES.—SPECIAL BUSINESS in:—
Devala Moyer.
Devala Central.
Great Southern Mysore.
Indian Glenrock.
Indian Kingdon.
South-East Wymad.
South Indian Gold.
Tambacherry.
Wymad District.
Wymad Perseverance.
At CLOSE MARKET PRICES, free of commission.
* * Reliable information given on any of the above. A daily price list issued giving closing quotations. SPECIAL BUSINESS in Frontino and Bolivia Potosi, Ruby, Nouveau Monde, and Richmond.
* * SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER MINES SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

M. W. H. BUMPUS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BUSINESS transacted in STOCK EXCHANGE SECURITIES AND MISCELLANEOUS SHARES of every description.
RAILWAYS, BANKS, FOREIGN AND COLONIAL BONDS.
TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS.
Accounts opened for the Fortnightly Settlement
A List of Investments free on application.

Mr. BUMPUS has SPECIAL BUSINESS in the undermentioned:—
75 Almaden, £2 13s. 9d.
15 Blue Hills, £3.
100 Bodidris, 20s.
50 Bedford United, 42s. 6d.
50 Carnarvon, 20s.
50 Chontales, 2s. 6d.
50 Onipapo, £3 1s. 3d.
5 Cape Copper, £4 3/4.
5 Colorado, £2 5s.
5 Dolcoath.
50 Devon Friendship, 20s.
50 Devon Consols, £9 1/2.
50 Derwent, 31s. 6d.
50 Drake Walls, 15s. 6d.
50 Devon Gt. United, 33s.
50 Devala-Moyar, £1 13s.
50 East Wheel Rose (5s. paid).
50 Eberhardt, 17s.
5 East Pool.
50 East Van, 28s. 6d.
50 East Roman Gravels.
50 Frontino, £4 2s. 6d.
5 Great Lacey, £18 1/2.
100 Gt. Polgoth United.
10 Gunnislake (Clitters), £3 1/2.
60 Goodewere, 25s.
20 Great Holway, £5 1/2.
100 Glenroy, 10s.
100 Grey's Brewery, £3 8s.
40 Hingston Down, 24s.
50 Indian Glenrock, 35s.
70 Indian Phoenix, 25s.
250 Javali, 5s. 3d.
25 Kit Hill, 22s. 6d.
50 Kapanga.
50 New Trumpet, £2 1/2.
50 New Pevor, 30s.
40 Nouv. Monde, 24s.
30 North Herodsfoot, 10s. 6d.
100 Polrose, 10s., call paid.
50 Potosi, 28s. 9d.
15 Penhalls, 38s. 6d.
100 Pen-yr-Osredd, 20s.
25 Panulidillo, £6.
50 Parys Copper, 16s. 6d.
20 Prince of Wales.
50 Rhodes Reef, 17s.
20 Ruby, £7 1/2.
15 Richmond, £16 1/2.
50 Standard Bank.
150 Sortridge, 24s.
70 So. Indian, £1 17s. 6d.
25 Santa Barbara, 38s. 6d.
5 Tincroft, £17 1/2.
40 Tankerville, 12s.
25 Silver Hill, 19s.
100 Tambacherry, 27s.
5 Van.
25 Wheel Sisters, 38s. 9d.
40 Wheel Jewell, 13s. 6d.
30 Wheel Fortune.
25 Wheel Greenville, £2 1/2.
40 West Goldolphin, £2.
50 West Polbreen, 29s.
15 West Kitty.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME AND FOREIGN MINES.

Mr. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

IMPORTANT TO INVESTORS.—The position of the TIN market is steadily improving, and in all probability there will be a considerable advance in the price of this metal very shortly.
Shares in SOUND TIN MINES should, therefore, be bought at present prices, many of them are likely to have an early and substantial rise.

The following are particularly recommended:—
WHEEL GRENVILLE.
WEST GOLDOLPHIN.
WEST KITTY.
WHEEL AGAR.
WEST POLBREEN.
NEW TRUMPET CONSOLS.
NEW PEVOR.
WHEEL BOYS.
NEW KITTY.
GOODEVERE.

WILLIAM HENRY BUMPUS, SWORN BROKER.
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Mr. BUDGE has DEALINGS in:—
40 Bedford United.
50 Brazilian.
150 Cherambadi.
75 Caliao "Bis."
5 Carn Bre.
50 Dingley Dell.
50 Don Pedro.
70 Drake Walls.
50 Devala Moyar.
150 Eberhardt.
4 East Caradon.
20 East Pool.
20 Froghoch.
50 Gawton.
50 Glenroy.
80 Gold Coast.
25 Gunnislake (Clitters).
25 Herodsfoot.
45 Indian Trevelyan.
45 Indian Phoenix.
110 Javali.
30 Kit Hill.
180 Kapanga.
30 Lead Hills.
10 Minera.
10 Mona.
74 New Kitty.
50 New Pevor.
65 Ozel Tor.
100 Pandora.
50 Prince of Wales.
100 Port Phillip.
100 Potosi.
70 Polrose.
50 South Devon.
100 Sentein.
45 South Darren.
120 Tolima.
10 Van.
20 West Kitty.
100 West Caradon.
80 West Polbreen.
10 Wheel Agar.
70 Wheel Coates.

BRITISH AND FOREIGN MINING OFFICES.

Messrs. PETER WATSON AND CO.,
18, AUSTIN FRIARS,
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BANKERS: THE ALLIANCE BANK (Limited).

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BRITISH AND FOREIGN MONTHLY MINING NEWS
—STOCK AND SHARE INVESTMENT NOTES—MINES,
MINERALS, AND METAL MARKETS—SHARE LIST,
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Pamphlet ready on application.

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WEST POLBREEN, and
NEW KITTY.
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Fortnightly Accounts opened in all Stock Exchange Securities on receipt of
the usual cover.
BANKERS: LONDON AND WESTMINSTER, Lothbury.

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PENNINGTON AND CO., SWORN BROKERS,
3, ROYAL EXCHANGE BUILDINGS, E.C.
Transact business in every description of Stocks and Shares.
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CONSOLS
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which ought to be secured at once, as the mine is
daily improving, and they must have a big rise
very shortly.

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SHARES BOUGHT OR SOLD ON COMMISSION.

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PROVIDED they are NOT SOLD, WITHDRAWN, or PRICE ADVANCED:—
50 Bodidris, 14s.
50 Derwent, £1 3s. 9d.
100 East Devon, offer.
50 East Rose (offer).
50 Friendship, 19s. 6d.
15 Froghoch, £3 1/2.
10 Grogwinion, £2 1/2.
450 Great Wh. Polgoth,
offer wanted.
100 Great Wheel Polgoth
(fully paid), 10s. 6d.
65 Gover Consols, offer.
50 Kit Hill, £1 2s. 6d.
150 Mounts Bay, offer.
10 New Wye Valley, 12s. 6d.
60 Okel Tor, 20s.
75 Old Shepherds, offer.
170 Parka Mines, £1 0s. 6d.
100 Polgoth Gt. United
1s., or offer.
110 Sortridge Cons., 18s. 3d.
40 South Darren, £1 10s.
100 So. Wheel Crebhor,
18s. 9d.
5 Tankerville.
100 Tamar Sil.-lead, 18s.
50 Walkham United,
offer.
50 West Devon, 8s. 9d.
5 Ystwith, 18s. 9d.
40 Quartz Hill, 18s.
100 Rhodes Reef, 16s.
110 South Indian, £2.

NOTE.—Offers can be made where no prices are attached.

M. W. MARLBOROUGH, STOCK AND SHARE DEALER,
29, BISHOPSGATE STREET, LONDON, E.C.

Can SELL the following SHARES at prices annexed:—
40 Bedford Unit., £2.
75 Brazilian Gold, 18s. 9d.
50 Bwloh United, 37s. 6d.
20 Carn Camborne.
25 Colorado, £2 5s.
50 Dev. Friendship, 20s.
75 Don Pedro Gold, 12s. 6d.
10 Devon Con., £9 15s.
20 Devon Gt. Uni., 29s.
50 English-Austra., 18s. 9d.
100 Exchequer, 4s. 6d.
50 Flagstaff, 9s. 3d.
25 Pioneer, £1 8s. 9d.
50 French Date Coffee,
(15s. paid), 11s.
20 Gunnis. (Clit.), £3 1/2.
25 Grogwinion, £2 2s. 6d.
50 Hingston Down, 22s. 6d.
60 Indian Glen., £1 16s.
40 Indian Phoenix, £1 7s.
25 Indian Trevel., £1 1s. 3d.
100 I. X. L., 4s. 6d.
100 Kapanga, 6s. 6d.
50 Kit Hill, 18s.
50 Lady Ashburton, 20s.
10 Minera, £2 1/2.
20 Marke Valley, £1 5s.
10 Mona, £2 1/2.
70 Mysore Reef, 15s.
25 Nouveau Monde, 23s. 9d.
50 N. Trumpet Con., £1 1/2.
25 Pioneer, £1 8s. 9d.
50 Potosi, £1 8s. 9d.
100 Prince of Wales, 16s. 3d.
100 Pandora, 15s.
50 Parys Corpora., 15s.
30 Panulidillo, £6.
50 Rhodes Reef, 17s. 6d.
200 Rossa Grande, 4s. 3d.
25 South Devon, £2.
50 South Indian, £1 18s. 9d.
50 Scottish Austra., £1 1/2.
50 Tamar Silver-Lead.
30 Tankerville, 10s. 6d.
50 Tin Hill, 20s. 6d.
50 West Crebhor, 10s.
50 West Phoenix, £1 1/2.
50 West Lisburne, 25s.
10 Wheel Bassett, £2 1/2.
50 Wheel Crebhor, £2 1/2.
50 Wheel Javali, 5s.
20 Ystwith, 19s.
50 York Peninsula, pref.,
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40 Organos Gold.
10 Devonport and Tiver-
ton Brewery.
500 Wheel Jane.
30 South Darren.
70 East Craven Moor.
45 West Craven Moor.
125 Herodsfoot.
ENDEAN AND CO., 85, GRACECHURCH STREET.

TAMAR SILVER-LEAD AND FLUOR-SPAR MINE.
The success of this mine is almost a fait accompli. Indications in the
27 in. cross-cut south are favourable for cutting into a rich body of silver-lead at
any moment, which will cause shares to rise to £5 or £10 each.

It is therefore not surprising to find parties who have sold shares which THEY
CANNOT DELIVER using every endeavour to get hold of them cheaply, and
with this object in view "bogus" lots are advertised, and said to be sold by
auction at ridiculously low prices. As a matter of fact, no transfers ever come
into the company's office for these cheap lots as advertised.

CAUTION TO SHAREHOLDERS.—Don't be frightened into selling your
shares at ANY PRICE till the nature of the recent discovery is more fully
ascertained.

BUY EVERY CHEAP SHARE YOU CAN GET, but do not part with your
money until you receive the certificate. By adopting this course you will
reap the designs of those who depreciate the value of your property by selling
shares at low prices, which they do not and cannot deliver.

**BEWARE OF PEOPLE SEEKING TO EXCHANGE shares of no value for
TAMARS.**
THE NEW DISCOVERY holds good, the lode being 3 ft. 6 in. wide, pro-
ducing splendid silver lead, which is much richer in silver than when the lode
was first cut into. A sample assayed by Messrs. Johnson, Matthey, and Co., on
the 2nd inst., gave a produce of 73.500 ozs. of silver per ton of 20 cwts., and
80 per cent. of lead. This is the most valuable discovery made in the district
since the days of South Tamar. It is, in fact, the same rich lode which pro-
duced over £1,000,000 worth of silver-lead in that mine.

Buyers and Sellers of Tamars should communicate with Messrs. ENDEAN
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lished 1861.

Bankers—London and Westminster Bank, Lothbury.

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Gold, Silver, Lead, Copper, and Tin Mines and Collieries, supplied with
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Registration of New Companies.

The following joint stock companies have been duly registered:—

THE JAMAICA TOBACCO PLANTATIONS COMPANY (Limited).—Capital 100,000*l.*, in shares of 1*l.* To acquire lands, plantations, wharves, &c., and to grow and prepare for sale all descriptions of tobacco, coffee, logwood, &c. The subscribers (who take one share each) are—W. D. Sharp, 10, Eastlake-road; T. K. Bellis, Croydon; A. Bebbouth, 59, East India-road; G. F. Ehrenzeller, 7, Canonbury Park; F. Williams, 72, Jeffrey Square; G. Unger, 10, Draper's Gardens; J. Mason, 61, Gresham House.

BELL AND BLACK MATCH COMPANY (Limited).—Capital 500,000*l.*, in shares of 5*l.* To purchase and continue an established business at Manchester, Glasgow, London, and York. The subscribers (who take one share each) are—G. Bartholomew, Stratford; H. G. Barton, York; E. Dixon, Manchester; J. J. Lary, Glasgow; W. Williams, Birmingham; J. Wilkinson, York; J. A. Elliott, Manchester.

THE PROVIDENCE GOLD MINES (Limited).—Capital 300,000*l.*, in shares of 1*l.* To purchase or otherwise acquire a mineral property and mines known as The Providence and South Extension Gold and Silver Mines, situate in the United States of America, and the rights, privileges, powers, and appurtenances belonging thereto, according to the terms of an agreement made between W. S. Chapman on the one part, and P. H. Bailey as a trustee. To explore, work, and develop the mineral resources of these or any other mines that may come into the possession of the company. The subscribers (who take 100 shares each) are—W. Dunn, Blackheath, gentleman; E. Harris, 110, Cannon-street, merchant; W. H. Holyland, Hurstpierpoint, gentleman; F. M. Lyte, Putney, engineer; A. W. Ray, Brixton, Lieut.-Col.; G. A. Batchelor, 18, Collingham Place, merchant; W. Leeming, Liverpool, gentleman. A majority of the subscribers will appoint the first directors, the number at any time must not exceed nine or be less than three, qualification 100 shares.

THE HYDRONE COMPANY (Limited).—Capital 50,000*l.*, in shares of 1*l.* To manufacture and dispose of hydrone and other compositions. The subscribers (who take one share each) are—J. C. Ker, 6, Astwood-road; L. M. Powis, 23, Powis-square; M. B. Rochfort, East Dulwich; J. Lynch, 20, Dancoille-road; B. G. Biggs, 2, East India Avenue; P. Pritchard, 100, Cloudeley-road; S. B. Tucker, 85, Gracechurch-street.

THE CAPE ELECTRIC LIGHT AND TELEPHONE COMPANY (Limited).—Capital 50,000*l.*, in shares of 5*l.* To carry on the business of electric and telephone engineers, contractors, merchants, manufacturers, and traders in all kinds of apparatus. The subscribers (who take one share each) are—A. J. Macdonald, 2, Suffolk-lane; J. Macdonald, 3, Lombard-street; G. F. Smith, 86, Cannon-street; G. B. Hamilton, 2, Cushion-court; B. W. Lloyd, Carshalton; T. J. Plennan, 3 Leyham Gardens; J. E. Vardy, 33, Nicholas-lane.

TYMAWR RHONDDA COLLIERY COMPANY (Limited).—Capital 10,000*l.*, in shares of 100*l.* To adopt and carry into effect an agreement made between J. S. Batchelor, J. Richards, and J. Williams, of the one part, and this company of the other. To search for, get, work, raise, buy, sell, and deal in coal, ironstone, brickearth, and other minerals, metals, and substances, and to manufacture and sell patent fuel, bricks, coke, and other products of minerals and substances whatever. The subscribers are—J. Richards, Penarth, builders, 30; J. Williams, Newton Nottage, colliery proprietor, 30; J. Kirk, Brecon, colliery proprietor, 1; J. S. Batchelor, Penarth, timber agent, 30; W. H. Lewis, Cardiff, solicitor, 1; W. Morgan, Cardiff, agent, 1; J. Richards, Penarth, postmaster, 1. The number of directors not to be less than three or more than five.

THE LONDON UNITED HOUSE PROPERTY INVESTMENT ASSOCIATION (Limited).—Capital 500,000*l.*, in shares of 20*l.* To acquire house property, buildings, lands, &c., to let, sell, or otherwise dispose of same. The subscribers are—G. H. Bechford, Wandsworth, 100; F. R. Pollock, 12, Cambridge-square, 50; H. Montague, 34, Queen's Gardens, 50; R. Churchill, Barnes, 50; E. C. Haynes, 9, New-square, 50; R. Fleming, Bournemouth, 25; J. Bull, 25, Old Jewry, 25.

THE VIENNA GENERAL OMNIBUS COMPANY (Limited).—Capital 250,000*l.*, in shares of 10*l.* To acquire, carry on, and extend an omnibus business established in that city. The subscribers are—A. G. Church, Upper Clapton, 50; F. M. Beresford, Kennington, 50; E. Morrison, Lee, 50; B. G. Hall, 11, Avenue-road, 50; H. Laver, 11, Pembroke Gardens, 50; J. Pound, 81, Leadenhall-street, 50; R. J. Kingham, 9, Tufnell Park-road, 10.

THE UNITED AGENCIES (Limited).—Capital 20,000*l.*, in shares of 50*l.* To carry on the business of agents, commission agents, general merchants, &c. The subscribers are—Z. G. Steens, Holland, 5; A. Kaupé, Stoke Newington, 4; C. Gravemann, Wether, 2; J. Jonas, Sheffield, 2; C. Margatter, Coombe Woods, 20; R. Kugel, Werdohl, 4; F. Gaus, Frankfurt-on-Main, 3.

GILBERT AND RIVINGTON (Limited).—Capital 45,000*l.*, in shares of 100*l.* each. To purchase and carry on the business of printers, lithographers, stationers, and bookbinders at Clerkenwell. The subscribers are—E. Mosley, 52, St. John's-square, 50; W. J. Mosley, 52, St. John's-square, 50; R. J. Lake, 52, St. John's-square, 138; J. Ayling, 52, St. John's-square, 2; B. G. Lake, 70, New-square, 1; G. Lake, Bushey House, 1; T. Mosley, Burton-on-Trent, 1.

THE DARLINGTON DISTRICT JOINT-STOCK BANKING COMPANY becomes incorporated as a Limited Liability company.

THE UNITED COLLIERIES AND COAL TRADING COMPANY (Limited).—Capital 100,000*l.*, in shares of 1*l.* To acquire interests in the veins, mines, or seams of coal or culm, with the brickworks connected therewith, known as the Aberdare Tower Graig and Dyffryn Merthyr Colliery, situate in Glamorganshire. The working and developing of the said collieries and brickworks, or any other property that may come from time to time into the possession of the company. The subscribers (who take 10 shares each) are—J. Cockerell, 8, New Broad-street, coal merchant; W. Mills, Brighton, stockbroker; T. Nicholson, Southampton, banker; M. Petrie, Hanover Lodge, Lieut.-colonel; E. Lund, 1, Queen Victoria-street, merchant; E. W. Henry, 27, Belzise Crescent, insurance broker; T. Thornicroft, King's Cross Station, coal merchant. No articles are registered.

CHARLES TAYLOR AND BROTHERS (Limited).—Capital 80,000*l.*, in shares of 10*l.* To acquire and carry on a cotton spinners' business at Bolton, Lancashire. The subscribers (who take one share each) are—M. Taylor, Bolton; T. Taylor, Bolton; W. Taylor, Bolton; J. Harewood, Bolton; J. F. Salmon, Bolton; B. Henry, Bolton; T. Harewood, Bolton.

THE BRITISH AND FOREIGN ADVERTISING COMPANY (Limited).—Capital 15,000*l.*, in shares of 10*l.* To carry on the business of printing, publishing, and advertising in all its branches. The subscribers (who take one share each) are—H. E. Harper, 55, Tregunter-road; F. T. Claremont, Forest Hill; G. Heniselle, 104, Fentiman-road; A. C. Harper, Addiscombe; F. B. Harper, Lee; H. E. Reid, Brookhurst; T. Morton, Temple.

WILLIAM SUGG AND COMPANY (Limited).—Capital 150,000*l.*, in shares of 10*l.* To acquire the goodwill and business of a gas engineer, gas-burner manufacturer, and carry on the same. The subscribers are—W. Sugg, Vincent-street, 1000; H. L. Hammack, 59, Bishopsgate-street, 1; N. E. B. Garey, 60, Anerley Park, 100; A. Hersee, South Penge, 1; R. P. Spice, 21, Parliament-street, 50; D. W. Sugg, Vincent Works, 50; W. S. Brown, Wandsworth, 5; R. Pierson, Wandsworth, 5; J. Coppen, Ashford, 100.

THE ELSWICK COAL COMPANY (Limited).—Capital 57,200*l.*, in shares of 65*l.* To carry on the trades of colliery owners, coke manufacturers, fire-clay proprietors, and manufacturers of fire-clay goods, and to adopt and carry into effect an agreement made between W. C. Carr, J. B. Simpson, and T. H. Cox of the one part, and R. Pybas, junior, on behalf of the company. The subscribers (who take one share each) are—J. Strachan, Newcastle-on-Tyne, actuary; H. Strachan, Newcastle-on-Tyne, shipbroker; J. B. Simpson, Blyth-on-Tyne, M.E.; R. Simpson, Ryton-on-Tyne, M.E.; J. H. Cox, Sunderland, gas manager; M. F. Gibson, Newcastle-on-Tyne, solicitor; J. Simpson, Heworth, M.E.

THE ANGLO-AFRICAN DIAMOND MINING COMPANY (Limited).—Capital 650,000*l.*, in shares of 10*l.* and 1*l.* To acquire by purchase or otherwise 111 claims in Du Toits Pan Mine, situate in Griqualand West, together with the plant, machinery, and effects. To open and work the mines, raise, dig, and quarry for diamonds, and other pre-

cious stones, coals, ores, earths, and other substances, and extract, purify, work, cut, polish, buy, and sell diamonds, &c. The subscribers (who take one share each) are—G. F. Smith, 86, Cannon-street, merchant; J. Jackson, 4, Stanhope-street, esquire; W. Holmes, 20, Threadneedle-street, solicitor; S. W. Paddon, Redhill, merchant; T. Lewis, 104, Hatton Garden, diamond merchant; R. W. H. Giddy, 6, Kensington Gardens-square, esquire; G. B. Hamilton, 2, Cushion-court, stockbroker. The first directors are the following:—Sir H. Barkley, Messrs. Smith, Jackson, Paddon, and F. Hertz; qualification 100 shares.

THE SOUTHPORT AND WEST LANCASHIRE BANKING COMPANY (Limited).—Capital 440,000*l.*, in shares of 5*l.* To carry on a banking business in all branches. The subscribers are: S. Boothroyd, Southport, 1000; W. Smith, Southport, 1000; B. Cheetham, Southport, 100; J. Unwin, Southport, 100; R. Nicholson, Southport, 150; E. Iddon, Southport, 200; T. Fisher, Southport, 50.

THE WEST RIDING UNION BANKING COMPANY becomes incorporated as a Limited Liability company.

ROBERT JONES (Limited).—Capital 7000*l.*, in shares of 25*l.* To acquire and carry on a business of art metal workers, established at Cheetham, county of Lancaster. The subscribers (who take one share each) are—T. Davies, Manchester; G. Watts, Manchester; S. Brammont, Manchester; E. Lomas, Cheetham; R. Jones, Manchester; J. O. Evans, Manchester; J. Hyde, Manchester.

DOVESTON, DAVEY, HULL, AND CO. (Limited).—Capital 15,000*l.*, in shares of 10*l.* To acquire and carry on in Manchester a cabinet maker's and upholsterer's business. The subscribers (who take one share each) are—J. Sewell, Manchester; W. Wadsworth, Manchester; W. Benson, Manchester; W. Davey, Dorking; T. A. Hall, Manchester; W. Wilson, jun., Manchester; G. Falconer, Hulme.

THE INDIAN GOLD MINES.

THE WYNAAD AND MYSORE GOLD FIELDS COMPARED.

The numerous British capitalists interested in Indian gold mines will appreciate the comparison of the two districts made by a Wynaad Engineer, in the Times of India. He remarks that, perhaps beyond the fact of their each possessing gold reefs, the districts have no features in common. Their characters, both above ground and below are entirely unlike. The Wynaad delights the eye with its magnificent mountain and sylvan scenery; Kolar offends the eye by its dreary treeless flatness. The Wynaad is dotted everywhere with picturesque bungalows and homesteads—enticing spots for permanent and peaceful residence; Kolar presents to view a few clusters of hideous huts, forming the camp. The Wynaad has no indigenous inhabitants, beyond a few half-wild tribes; Kolar has its orthodox walled villages and its ryot cultivators. The Wynaad has no railway, while Kolar has. One might trace matters down to the absurd details, and still find the same sort of opposition. Such a process might afford half an hour's pastime; but the comparison becomes one of importance if we have under consideration the larger features of the two districts. It becomes of importance as indicating the different characters of the mining operations in the two mining fields.

From the difference in the merely physical aspect of the two countries he deduces a most important difference in the methods of mining; for whereas in the Wynaad the mountainous and hilly nature of the country reduces very considerably the necessity of pumping in the mines, and of hauling the material out of shafts; in Kolar the marked flatness of the place, broken by only one or two low ranges of hills, renders both these expensive operations necessary in their most unqualified form. Kolar has no wood, whether for timber or fuel, so that this would have to be brought by railway. There is a good deal of building stone about the place, however, and it would probably be useful to save much of the importation of timber by using masonry for the shafts and galleries. And this plan specially recommends itself on account of the security of masonry against the ravages of white ants. The geological features of Kolar, again, are different from those of the Wynaad. In the latter the rocks are composed of gneiss; the mountains of an exceedingly hard highly metamorphic gneiss, almost like a very fine granite; and the plateau of a softer gneiss, in various stages of decomposition; it is in the latter that the workable reefs occur. In Kolar the hills, where there are any, are composed of a curiously hardened rock, as hard almost as flint; and the rocks in the flat land, where the true reefs occur, are of blue and grey slate, changing on the west into schist, and finally into granite, in which latter all trace of gold is lost; the field is intersected with a few walls and dykes of trap rock. So far as this is concerned these are no advantages or disadvantages in the one district over the other.

But since the ground about Kolar is not broken up and disturbed, as in the Wynaad, it is obvious that prospecting operations, and in some cases the operations of mining proper, can be carried on in the one more easily than in the other. The reefs of Kolar strike in a northerly and north-westerly direction; which is the usual direction for productive veins and reefs throughout the world. Many of the reefs are wonderfully distinct, and some can be traced by a superficial glance of the eye for a length of over half-a-mile. Perhaps they are more persistent here than in the Wynaad, but this is not easy to decide, owing to the hilly and disturbed condition of the latter district. They do not appear to be more numerous. The character of the quartz is distinctly different from that of Wynaad, having generally a bluish tinge, with a waxy or milky appearance. It is free from pyrites, a point which is greatly in its favour, and simplifies considerably the process necessary to extract the gold from it. In some places it is undoubtedly rich in gold; piece after piece can be taken up showing the metal visible. The experimental crushing at the Ooregum Works was sufficient to prove that it is sometimes of good quality; and if further proof were wanting it is furnished by the fact that there are many parts of Kolar where every dish of earth and alluvium that is washed gives a good yield of gold. The native mining operations have been primitive, as is the case in all their mining operations of whatever kind throughout India; they do not understand the timbering of shafts and galleries, the result being that their workings soon fall in. Sometimes fatal accidents occur, and the people, thinking the place cursed by a devil, give it up. It is astonishing, however, to what extent they have mined formerly in Kolar. In one place it has been found that they have gone to a depth of over 70 ft., and in another place they have quarried along the length of a hill for nearly a quarter of a mile; and in another they have driven a gallery an unknown distance, it being now impenetrable beyond a certain point owing to foul air and snakes. The entrance to this gallery has been worked into a large cave.

On the east side of the gold field the women frequently wash in the streams for gold until they have got sufficient to satisfy them, when they take it for sale to the nearest bazaar, and buy what they want with the money. Many might make what for them would be respectable fortunes did they care to do so, but indolence prevents them. It is curious to see how indifferent the people are to the matter. On the west side of the gold field, where the people live on the granite country, it is impossible to find one woman who understands washing for gold, although the gold-bearing rocks are only a few minutes walk from them.

This leads to the consideration of the question of labour. So far as that is concerned Kolar has a considerable advantage over the Wynaad; it possesses indigenous labour; indeed, Mysore is the district from which the Wynaad draws most of its supply. One would have imagined that the sudden demand for an increased labour supply caused by the appearance of the gold industry would have resulted in a rise of the price of labour. It has not done so, however, and there is reason to suppose that the supply will continue to meet the demand. Another advantage possessed by Kolar over the Wynaad is the presence of a railway; and now that a loop line is about to be constructed right through the gold field, the expenses of carriage will be reduced to a minimum. The climate of Kolar seems to be healthy and bracing, and free from the sickness which is characteristic of Wynaad during the months of April and May. If, however, the miners will persist in going out bareheaded, or with nothing more than cloth caps, they must expect to be knocked over with fever and the sun. Now as to whether or not the Kolar gold

fields give a promise of success to the companies engaged there in mining operations. The gold fields in some instances most decidedly do so. If there are failures, as no doubt there will be, it will not in the majority of instances be due to the false indications given by the country itself, but will be due to unjustified speculation or bad management.

The concern should be placed in the hands of a competent and certified engineer; not in the hands of what they are pleased to call "practical men," nor in the hands of an adventurer. There are mining engineers of old standing who have had the necessary training and education, and the subsequent experience required. Unfortunately, these are not as plentiful as they should be, owing to the fact that England never thought of training her miners until 23 years ago; but they are becoming more plentiful every day. With reference to this matter, it is worth observing that Germany, which carries on its mining according to fixed principles and by trained men, makes it on the whole profitable as a speculation. Whereas England, which carries on its mining according to no principles, and by "practical men" and adventurers, makes its mining speculations, taken together, losing concerns. Another mistake that is very likely to be made, owing to the general outcry for returns, is hurried working and imperfectly conceived plans. No greater mistake could be made. The directors are not entitled in promising, the public ought to know that they are not justified in asking for quick returns. It is just as absurd to expect a large gold mining company to pay dividends the first or second year, as to expect a railway company to do the same. If these and other precautions which will present themselves to careful companies are observed the chances of failure will be reduced as near to the minimum as they can be. But those who spend fabulous sums of money in purchasing what they know nothing about must naturally expect to tremble in their shoes during the time they have to wait until the value of the object of their purchase has been proved.

COAL MINING PLANT.—A carefully and thoughtfully executed series of working drawing of coal mining plant has just been completed and published by Mr. J. POVEY-HARPER, M.E., of Derby, consulting engineer to the New York and Acadia Coal Company, and mineral agent to the Coalbrookdale Company. The series embraces three sheets showing the general arrangement of a colliery plant, range of colliery workshops, cast-iron tubbing, set of lifting pumps, details of pumps, hydraulic pumping machinery, shear legs, head stocks, round rope drum and pulley wheel, winding-engines and foundations, sections and elevations of foundations, double-flued boilers and seatings, chimney stack, double cages in a 16 ft. shaft, and wagons, landing props, pit-wagons, revolving coal-tipping machine for screens, coal screens, coke ovens, ventilating fans, main and tail rope hauling engines, foundations, and jenny arrangement for inclined planes, engine-house and foundations for underground hauling engines, endless rope haulage, ditto with sketches of clips, and plans of coal workings by pillar and stall, double stall, and longwall. The work is of the utmost possible utility to students and mine-managers, and for those undertaking to open out new collieries, whether in this country or abroad no more complete guide could be desired.

GAS AND WATER COMPANIES DIRECTORY AND STATISTICS.—The fifth annual issue of the Gas and Water Companies Directory—that for 1881—edited by Mr. Charles W. Hastings, has just been issued, and the fact that upwards of 2500 corrections have been made affords double evidence of the care with which the work is edited, and of the necessity for consulting the newest editions when the officers of the companies have to be communicated with, or when it is desired to obtain any other facts concerning them. The details given include the name of the town and county in which it is situated, date of formation, Act under which it is formed, capital, name of chairman, engineer, or manager, secretary, lessee, owner or corporation, population, distance from London, and railway upon which the town is situated. The work has an excellent general index, the utility of which is obvious. The third issue of Gas Works Statistics, by the same editor, which accompanies the work just mentioned, gives the tons of coal carbonised, make of gas, illuminating power, price per 1000 cubic feet, price paid for public lamps, and amount of dividend. This year Mr. Hastings also issues, for the first time, a little volume of Waterworks Statistics, giving the source of supply, if gravitation or pumping, quantity raised per annum, whether the charges are on assessment or by meter, number of meters in use, whether constant service, and amount of dividend. As the returns are in all cases obtained from the engineers and secretaries they are, of course, thoroughly reliable.

CASELL'S PUBLICATIONS.—Science for All, part 44, contains articles on a gnat, by Arthur Hammond; on heat power, by W. D. Scott-Moncrieff; on hearing, by Prof. T. J. Parker; on a fruit, by Dr. Robert Brown; on cooling, by W. Durham; and on a mussel, by Dr. Andrew Wilson. The History of Protestantism, part 25, contains the first portion of the History of Protestantism in the Netherlands. Knights Dictionary of Mechanics, part 55, extends from Planing-machine to Polariscope. The several articles, &c., are of the usual interesting and attractive character.

LETT'S POPULAR ATLAS.—Under this title, Messrs. Letts, Son, and Co., of King William Street, have published unquestionably the best series of cheap maps yet issued. The maps show ocean depths, ocean currents, and the leading physical features of each country—the volcanoes of the West Indies and South America, the forest, prairies, and treeless plains of South America, Canada, and Norway, and the glaciers of Switzerland and Norway being prominently shown. The Atlas will be particularly valuable to commercial men from the care that has been taken to indicate the wine districts of France, Germany, Austria, Spain, Portugal, and Italy; the wool districts of Australia; the grain districts of Canada and Russia; the gold and diamond districts of South Africa; the tea districts and treaty ports of China, and so on. But the most characteristic geographical feature of the Atlas, distinguishing it from any hitherto published, is the insertion of maps of England, Ireland, or the British Isles, on the same scale, so as to convey through the eye a correct impression of the size of the country delineated. There is an index of 74 pages, five columns in a page, containing about 23,000 names of places, with the country in which they are found, and their latitude and longitude. A more useful and complete atlas could scarcely be desired, whilst its compactness and extreme legibility (it occupies no more space than a few quires of foolscap) make it equally well adapted for school, business, or home purposes.

RYLAND'S DIRECTORY.—The frequent application by inventors, manufacturers, and other men of business for the names and the addresses of the principals of collieries, mines, or industrial establishments connected with metallurgy, is sufficient evidence that a work of the character of Ryland's Directory supplies a want, and when it is stated that it appears to be thoroughly accurate and reliable, it will be generally appreciated. From the summary given it appears that the work contains full reference to 725 brands and trade marks; 203 blast furnace works; 289 works making manufactured iron; 156 crucible steel works; 51 Bessemer and Siemens' steel works; 82 tin plate works; 51 works producing Bessemer and hematite pig iron; 12 works producing cold blast pig iron; 176 works producing mine, part mine, and cinder pig iron; 151 makers of bar iron; 103 makers of angle iron; 38 makers of horse shoe iron; 22 nail makers; 76 plate makers; 39 iron rail makers; 16 steel rail makers; 57 section iron makers; 86 sheet iron makers; and 44 T-iron makers. The utility of these details cannot be doubted, for not only will they enable either purchasers or sellers to communicate with facility with the works of a particular district, or by referring to several ascertain with which it is most advantageous to do business, but they will enable him to see that he has really received the brand he has gained for. There is a handsome map showing the position of the ironworks, ironstone mines, and coal measures, whilst on 12 smaller railway maps are given the localities where the numberless iron, steel, and tin-plate works are situated. The pig and finished iron manufacturers are carefully and systematically arranged and will doubtless be very frequently consulted both by merchants and dealers; in fact there are few doing business connected with metallurgy who will not find it a valuable desk companion.

THE
YUBA RIVER GOLD-WASHING COMPANY, LIMITED,
 CALIFORNIA.

Incorporated with limited liability by Shares, under the Companies Acts, 1862—1880, whereby the liability of each Shareholder is limited to the amount of his Shares.

CAPITAL £140,000, IN 140,000 SHARES OF £1 EACH.

74,000 fully paid-up shares will be allotted under contracts to and among the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), and the Fall Creek Lakes Water Company (Limited), in part payment for the properties of these companies.

2s. 6d. per share payable on application, 5s. on allotment, and the balance as required, at not less than one month's notice.

DIRECTORS.

JOHN IRVING COURTENAY, Esq.

REGINALD BIRD, Esq., M.A.

JAMES EDGAR BOWE, Esq.

GEORGE WILLIAM DIXON, Esq.

TUFNELL SOUTHGATE, Esq., Chairman of the Roman Gravels Mining Company (Limited).

HENRY WILSON, Esq., Director of the Tankerville Great Consols (Limited).

Directors of both the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), and the Fall Creek Lakes Water Company (Limited).

PETER WATSON, Esq., Chairman and Managing Director of the Devon Great Consols Company, and Director of the Great Laxey Company (Limited)—London Manager.

BANKERS.

Messrs. PRESCOTT, CAVE, BUXTON, LODER, and Co., Threadneedle Street.

SOLICITORS.

Messrs. RENSHAW, 2, Suffolk Lane, Cannon Street, E.C.

BROKERS.

Messrs. MARSHALL and HULBERT, 18, Finch Lane, London, E.C.

SECRETARY.

Mr. W. J. LAVINGTON.

OFFICES—14A, AUSTIN FRIARS, E.C.

The object for which this company has been formed is to acquire and work, as going concerns, as from the 30th of June, 1881, the properties and businesses of the two companies known respectively as the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), and the Fall Creek Lakes Water Company (Limited), hereinafter called the Blue Tent and Fall Creek Companies.

I.—THE BLUE TENT COMPANY.

This company owns one of the largest and most valuable of the gold-bearing gravel beds of California. The property consists of

- (1.) 490 acres of gold-bearing gravel, of an average thickness of 400 ft., situated within one hour's drive to the north-east of Nevada City, Nevada County, California; and
- (2.) A valuable Water-right, a Canal 31 miles in length, of the capacity of 25,000,000 gallons per diem during the water season (a quantity about equal to that carried by the largest of the Metropolitan Water Companies), and two smaller aqueducts.

Taking the area of the auriferous alluvium at 400 acres, and the thickness at only 225 ft., the gold contents of this property, based on the average yield of the last three years from the gravel of the South Yuba bank, reaches the high figure of £3,700,000 sterling. The cost of getting the gold should not exceed 45 per cent. of the gross yield.

It may here be observed that the quantity of gold as yet untouched in the auriferous gravel beds of California is enormous. Further information on this subject, and a description of the process by which the gold is washed from the gravel, will be found in the Edinburgh Review for January, 1879.

The business of the company consists in the washing down, with the water brought by the canals and aqueducts, the banks of gravel through troughs or tunnels in which the gold is caught. This operation is conducted on a vast scale, and is certainly free from the ordinary mining risks.

The company has been engaged since the latter part of 1873 in building canals and reservoirs, and in developing the property generally. During this time the total produce of gold has been £122,000 sterling, of which £81,000 was from the South Yuba bank

alone; and the whole of this amount (after defraying working expenses and the necessary charges for interest on debentures and loans) has been expended on permanent improvement of the property.

A new tunnel of large size is nearly completed to the face of the South Yuba bank (only 340 ft. remaining to be driven), through which the rich bottom gravel in the centre of the property will be washed off. The property will then be in full working order.

In addition to the water from its own canal and the Fall Creek Lakes a further supply is procured from another water company, so that on the completion of the tunnel the company will rank in the production of gold amongst the very largest of similar undertakings, such, for instance, as the North Bloomfield Gravel Mining Company, an American Corporation, whose report, dated January, 1880, shows a net profit for the year of £37,500 from their gravel property in the same county.

The new tunnel of the Blue Tent Company is of about the same capacity as that of the North Bloomfield Company, and as the Blue Tent gravel is of a richer description the same volume of water should produce even better results.

Mr. Thomas Price, of San Francisco, a leading mining expert in California and the agent of the company, has valued the property of the Blue Tent Company as a whole, on completion of the tunnel, at £183,750.

The debenture debt of the Blue Tent Company of £57,100 will be adopted by the present company. £10,000 of this which falls due January 1st, 1882, it is at present proposed to pay off at maturity. The remaining £47,100 is not due until May 1st, 1885, before which time it is anticipated that by reason of the increasing yield and value of the property, the debentures can be paid off or renewed on terms more favourable to the company than those of the existing debentures.

II.—THE FALL CREEK COMPANY.

This company owns a canal, seven lakes, and a saw-mill. The lakes are situated in Nevada County, in the mountain range which forms part of the water-shed of the South Yuba River.

The canal is eight miles in length, and brings water from the company's lakes to the head of the Blue Tent Company's canal on the South Yuba River, and is also used to float timber to the same place.

The lakes and reservoir sites belonging to this company cover an area of 200 acres, and their storage capacity can be largely increased. The Fall Creek Company has, out of the profits earned by the sale of water and lumber to the Blue Tent Company, paid in 1879 and 1880 a dividend at the rate of 5 per cent. per annum.

The Fall Creek Company has no debenture debt.

Mr. Thomas Price reports that on completion of the new tunnel and lake improvements the joint properties of these two companies will be of the value of £214,000, and will be capable of earning a profit of not less than \$136,000, or say £27,750 per annum, the whole of which will be applicable to dividends, after payment of the debenture interest, £4710. In other words, the estimated profits will be equal to a dividend of 15 per cent. on the capital of the company.

This estimate of profits is confirmed by Mr. James Edgar Bowe, a director of the Blue Tent and Fall Creek Companies, at present in California, and Mr. Geo. S. Powers, the resident superintendent, a gentleman of great experience in this description of property.

Of the capital of the Blue Tent and Fall Creek Companies £153,794 in the aggregate has been issued and paid up, and the total purchase money for which they agree to sell their properties and businesses to the company is £74,000 in fully paid up shares of £1 each, and £36,000 in cash, making together £110,000. Such purchase money was fixed by the vendors, the Blue Tent and Fall Creek Companies respectively in general meeting.

The only contracts entered into by or on behalf of the company are two contracts, both dated the 17th day of June, 1881, the one made between the Blue Tent Consolidated Hydraulic Gold Mines of California (Limited), of the one part, and Holland Dell of the other part; and the other made between the Fall Creek Lakes Water Company (Limited) of the one part, and the said Holland Dell of the other part.

If no allotment is made the deposit will be returned in full. Copies of the above contracts, together with Reports, Maps, and photographic views of the properties, and the Memorandum and Articles of Association, can be seen at the offices of the company.

Prospectuses and Forms of Application for Shares can be obtained at the offices of the company, or at the Brokers or Bankers.

PRACTICAL GEOLOGICAL INVESTIGATION—No. III.

THE GLACIAL ORIGIN OF THE NORTH AMERICAN LAKES REFUTED.

The watershed between the present drainage system of the Grand river and Dundas valleys is at only a short distance south-west of Copetown, and the distance in the direction from the Fairchilds to the Dundas side of this divide is less than seven miles, with an average altitude of less than 480 feet. The highest point of which Prof. Spencer has taken the altitude is 492 feet above Lake Ontario. The country gradually descends from the divide to Fairchilds Creek, which as it crosses the Brantford and Harrisburg Railway is 407 feet above the lake. It is considerably lower where it enters the Grand river. The region between the divide and the Grand river is traversed from north-west to south-east by a considerable number of streams, all with relatively large valleys cut in the drift, since the present system of drainage was inaugurated in post-glacial times. On examination it may be seen that the country is too high to permit Fairchild's creek or Grand river, as they are at present situated, flow over the height of land into the upper portion of Dundas valley. The Niagara limestone forms the summit of the escarpment at Ancaster, but westward thereof limestones are nowhere to be found; the country is only covered with drift. Going on westward it is found that the streams have not cut to an equal depth, but still run deeply through the drift.

Eventually we reach the divide, after which we find that other systems of streams also cut deeply in the drift running in a south-easterly direction to join the Grand river; but the Niagara limestone is absent from a considerable extent of country. On the northern side of the Dundas valley the escarpment after reaching Copetown is buried by the drift. Although the line of buried cliffs recedes somewhat to the northward of the Great Western Railway, yet there are occasional exposures, as at Troy and other places in Beverley and Flamboro', where the underlying limestones come to the surface. At Harrisburg the limestones are known to be absent for a depth of more than 72 feet, as shown by a deep well in the drift. In fact if we draw a line from Dundas to the northward of Harrisburg (a mile or two), and another from Ancaster southward to the Grand river, we have two limits of a region where the limestone floor has been cut away from an otherwise generally level region. The southern side of this area is the southern margin of the Grand river valley, between Seneca and Brantford, and the western boundary is composed of Onondaga rocks, east of Paris, which perhaps forms an island of rocks buried more or less in drift.

Referring to the topography and hydrography of Lakes Superior, Michigan, Huron, and St. Clair, Prof. Spencer carefully points out the most striking features. Lake Superior may be described as a large basin, with a level or gently undulating bottom and steep margins; the mean depth may be placed at 800 feet below its present surface. The depth of the lake at three or four miles from the shore is generally as great as in the centre; in fact it is often deeper near the shore on its north-western side. That this great plane is not covered with any great depth of drift deposit (except locally) appears evident on examining the character of the bottom of the lake in the soundings just off Keweenaw point and those to the northward. The general direction of the deepest channel for more than 200 miles along the north-western margin of the lake appears to point to a river course in the region of its south-western extremity, and the few deeper holes to have been produced by some receding cascade from the adjacent shore, to which there appears to be a transverse deep channel south of the mouth of Gooseberry river.

Prof. Winchell calls attention to the depression in the low country between the Chocolate river (east of Marquette) and the Train bay (near the Pictured rocks) as the only place where there could have been connection between the basins of Lake Superior and Michigan. Turning to Lake Michigan, Prof. Spencer remarks that it may be said to consist of a broad long plane, the northern half having a mean depth of 600 feet, whilst the soundings in the southern half are not much more than half that measurement. Throughout the whole length the lake appears to be traversed by a deep channel, and in the northern end by more than one. The conspicuous channels in the submerged plane extend far northward to near the end of the lake. An interesting sounding east of the mouth of the Manistique river shows a depth of 448 feet at two miles from the shore, whilst all the adjacent depths do not exceed 11 fathoms. This appears to be a continuation of the deep soundings 10 miles to the southward, but the surrounding lake bottom is covered with drift to a great depth wherever the Niagara limestones have been removed. It is more than probable that this great depth is in a rock-bound channel of an ancient water course, which elsewhere has been filled with drift. It seems probable that it was a portion of a buried channel extending through the valley of the Manistique lakes to the depression in the country to the south of Lake Superior, already alluded to, and formed a preglacial connection between the valleys of Lakes Superior and Michigan.

Green Bay is separated from Lake Michigan by a Niagara escarpment facing the westward, and rising 200 or 300 feet above the waters. There appear not to have been any closer connections between these two basins at any previous time than at present, excepting when the waters were at a higher level. It has been stated that from Green Bay for 400 miles to the Mississippi river a broad low depression occurs in the country, and may have been a former outlet for Lake Superior. This valley is filled with drift, even if it ever had a sufficient depth. Since Prof. Spencer read his paper he has seen Gen. Warren's report on the Transportation route from the Mississippi river to Green Bay, via the Wisconsin and Fox rivers. This shows that the bottom of the valley just mentioned has a maximum height of 208.8 feet above Green Bay, and that Lake Winnebago, on Fox river, is 169 feet above the same water. This small lake discharges by the Fox river, which flows over hard limestones down a series of rapids. Therefore Green Bay never discharged its waters into the Mississippi river, and this depression in the country between the Great river and Lake Michigan (the Green Bay portion) was not a former outlet of Lake Superior, since it was within about 200 feet of the present level. This fact strengthens the probable correctness of the suggestion that Lake Superior emptied into the northern end of Lake Michigan directly. Also Green Bay has evidently the character of a fjord. The outlet of Lake Michigan could only have been by the low country along the Illinois river. Of the water basins of Lakes Huron and St. Clair four divisions can be made. The first section may be made to include the shallow basin south of a line drawn from Thunder Bay, or Presqu' Isle, to Kincardine, in Canada, and Lake St. Clair. The second basin comprises the deep channels of Lake Huron, and extends northward to the Manitoulin islands and the Indian peninsula, the third the North channel between the Manitoulin islands and the Huronian hills to the northward; and the fourth Georgian Bay proper. The first of these divisions is represented by shallow water, seldom 35 fms. deep, but with a channel of about 50 fms. depth running through it towards the direction of the north axle of the Ou Sable river, near Brewster's mills. Saginaw bay, belonging to this section, is like Green Bay, shallow even at its mouth, where it is less than 100 ft. deep. Lake St. Clair is a flat plane, with its bed varying from 18 ft. to 21 ft. below its surface, and is altogether modern. All the obtainable evidence appears to show that the southern end of Lake Huron, and the western end of Lake Erie, with the intervening region, constituted one plane, underlain by a considerable depth of Eran shales, reposing on the thick development of coniferous limestone, and traversed by deep channels running throughout it. The second Lake Huron division is that portion between the line drawn from Presqu' Isle to Kincardine, and the Manitoulin islands to the northward. It consists of a broad plane at an average depth of 75 fms. below the lake surface, traversed by several deep channels, those in the marginal portions of the lake are generally more obscured by drift and silt than towards the central waters. This portion of the tube is excavated out of the rocks of the various formations, from the Niagara to the coniferous limestones, but most largely out of the more or less soft rocks of the Onondaga group. The North channel is generally in shallow water, the greatest depth being only 204 ft.; it may be considered as a broad continuation of the Spanish river to the westward.

That the Dundas valley is that of an ancient river valley now,

buried to a great depth with the debris produced in the Ice age, becomes apparent on a careful study of the region under; but until the key of the mystery was discovered its origin was very obscure. Prof. Spencer's labours in studying this region may fairly be called the first systematic attempts at the solution of the present configurations of the western end of Lake Ontario and the adjacent valley. It had been asserted that it was scooped out by a glacier, but this wild hypothesis was only a statement made without any regard for facts. The topography of the lower lake regions precludes the idea of a glacier flowing down the valley to the north-eastward. Again, as the direction of the ice was towards the south-west, the waters from the melting glaciers could scarcely flow up an escarpment many hundreds of feet in height. Even if the Niagara escarpment did not exist elsewhere the non-parallelism of the striae and edges of the escarpment with their angular summits is sufficient to prove the non-glacial origin of the valley in the hard limestone rocks. Moreover, at the eastern end of the narrower portion of the valley there are two concave curves, facing the lake, which of necessity would have been removed if such a gigantic grinding agent had been moving up the valley. This glacier origin of the valley being an absolutely untenable hypothesis, Prof. Spencer sought for some fluvial agent capable of effecting the present configuration of the region. At the time no idea occurred that even the great valley of the present is only a miserable remnant of one of gigantic proportions, obscured by hundreds of feet of drift. After a careful examination of the region and of the railway levels he came to the conclusion that this was an old buried valley, and it ultimately became apparent that Lake Erie had flowed by the Grand river, reversed to a point west or north-west of Seneca, and thence by the Dundas Valley into Lake Ontario; also that the upper waters of the Grand river, previously discovered as passing down the Dundas Valley, were really tributary to the outlet of Lake Erie, and joined it somewhere south of Harrisburg, and that the basin between the Brantford (and the Grand river of to-day) and the Great Western Railway at Copetown formed an expanded lakelet along the course of the ancient outlet of Lake Erie, scooped out the softer rocks of the Onondaga formation already mentioned. As the waters excavated a bed in the deeper channel, of course this lakelet would become an expanded valley, such as we often see among the hills of drift at a short distance westward of Dundas.

The maps and sections by which Prof. Spencer's paper is illustrated render his descriptions and arguments particularly lucid. He has a good case, and he states it well. His views as to the origin of the Lower Great Lakes of the North American Continent are unquestionably more reasonable than the hypotheses which have hitherto been put forward. As to the notion that the lakes were excavated by glaciers he observes that one cannot do better than give a summary of what Prof. Whitney, in his Climatic Changes, says with regard to the erosive power of ice. Ice *per se* has no erosive power. Glaciers are not frozen to their beds. Ice permeated with water acts as a flexible body and can flow accordingly. In neither the extinct glacier regions of California nor in the shrunken glaciers of the Alps will it be found that ice scoops out channels with vertical sides as water does. No change of form can be observed at the former line of ice. Aside from the morainic accumulations there is nothing to prove the former existence of the glacier except the smooth polished or rounded surfaces of the rocks, which have no more to do with the general outline of the cross section of the valley than the marks of the cabinet-maker's sand-paper have to do with the shape and size of the article of furniture whose face he has gone over with that material. The most important work of a glacier is the scratching and grooving its surfaces. This may, however, be done by dry rubbing, so that isolated scratched stones, or patches, are no evidence. The underlying rock surfaces may lose their sharpness owing to contained detritus in the ice, and become rounded. The ground moraine is neither characteristic nor important. There is but little detrital material beneath Alpine glaciers, and this is the result of water more than ice. The branch of investigation which Professor Spencer has taken up is, beyond doubt, interesting and valuable, and he has certainly brought to light sufficient facts already to have an important bearing on the great controversy of the glacial drift, whilst every thoughtful reader will come to the conclusion that Professor Spencer is fully justified in affirming that the ultra-glacial theorists stand on uncertain grounds.

REAPPLYING SPENT STEAM IN STEAM-ENGINES.

A method of almost indefinitely using as motive power the spent steam of engines has been discovered by Mr. J. BELOU, C.E., of Paris, and consists in causing such steam to pass successively through a greater or smaller number of injectors between the engine boiler and the driving cylinder, acted upon separately by currents of steam under pressure, overheated or not, and acting upon one another, joined head and tail in such a manner that the first current having sucked the spent steam, and having communicated to it a first degree of pressure, the second current in its turn sucks the product of the first, and imparts to it a second degree of pressure, and thus one after the other for the injectors following, until the product resulting from the mixture of the sucking steam with the steam sucked may have attained a sufficient pressure to be used as motive power by the engine. The final product of these successive concentrations is received in a chamber, whence part passes through the engine as motive power, and part through the injectors of the first degree to act as sucking steam. The surplus is sucked by a pump and returned to the boiler, or is condensed in the chamber, to pass from thence into the boiler by its own weight, if in this last case care has been taken to place the chamber above the level of the boiler, and to connect the two vessels by a plunging tube, so that a natural circulation between the two liquids is established by the only difference of the pressure, and the temperature between the two vessels and the last injector—that is, the one that is to furnish the highest degree of pressure, and is alone fed directly by the steam from the boiler.

In practice the arrangement is said to work admirably. The spent steam is revived and regenerated successively and progressively, partly through contact with the steam resulting from the preceding impulses, partly through contact with a current of new steam coming directly from the boiler, and the product resulting from the mixture of the sucking steam and the steam sucked is received into a chamber apart from the boiler, from whence to pass and to be distributed as motive power, while the surplus is returned to the boiler either in a state of steam or of condensed water, and thus on indefinitely, so as to create a continual circuit from the boiler to the engine, and from this latter to the boiler in passing successively through the different states described, and without any other expense of heat than that which is necessary to repair the loss of calorific lost in the work and that resulting from the exterior radiations of the parts of the engine. The chamber receiving the steam from the injectors is at once justly used as a pressure regulator to attenuate the effects of the intermittent inductions of steam in the engine, and also because, when it is placed above the level of the boiler the superfluous steam from the injectors is allowed to pass into the latter, and the differential pressure between the sucking steam and the steam sucked required for the working of the injectors is preserved. And, finally, to regulate the sucking of the injectors the spent steam from the engine is arranged to be received into a similar chamber, from whence to pass to the injectors.

SCIENTIFIC ENGLISH READER.—The first part of the valuable technical reader, "Englisches Naturwissenschaftlich-Technisches Lesebuch," arranged by Dr. F. J. Wershoven, of Brieg, near Breslau, has already been noticed in the *Mining Journal*, and the third portion, treating of engineering technology, has now been issued. The principle upon which the author proceeds is to give an article in English by a competent writer, on Engineering, Geodesy, Earthwork, Tunnelling, Canals, and so on, by Rankine; on Commercial Telegraphy, and Specification for Telegraph Wire, by Preece and Sive-wright; on Rock Boring, by J. Darlington, for example—and then gives ample notes to enable the student to translate the whole article into intelligible German. By this means comparative fluency is ac-

quired, without necessitating the learning of a large vocabulary of seldom occurring words, and waste of time is altogether avoided. Dr. Wershoven has done much to facilitate the interchange of ideas among the industrials of England and Germany, and his labour will be widely appreciated in both countries.

MECHANICAL ENGINEERING.—A valuable addition has just been made to the well-known Weale's series (published by Messrs. Crosby Lockwood and Co., of Stationers' Hall-court) by the issue of a Practical Treatise on Mechanical Engineering, comprising metallurgy, moulding, casting, forging, tools, workshop machinery, mechanical manipulation, manufacture of the steam-engine, by Mr. Francis Campin, C.E., of Leeds. The author explains that the present work is substantially an abridgment of his larger treatise on the same subject published some years since, but the text has been entirely rewritten, and the details have been corrected so as to correspond with the most approved modern practice. A quantity of descriptive matter, for example, has been eliminated, and replaced by accounts of vacuum brakes and other modern appliances, and similar modifications are observable throughout. The volume will prove of great practical utility to the mechanical engineering profession generally, and if carefully studied by apprentices and young workmen will assist materially to make them masters of their business, and thus confer lasting benefit upon themselves and on those employing them. It is a very cheap half-crown's worth.

SOUTH LANCASHIRE AND CHESHIRE COALOWNERS' ASSOCIATION.—The usual monthly meeting of members was held on Tuesday at the Queen's Hotel, Manchester, Mr. Clarke, the President, occupying the chair. The chief matter under discussion was the announcement made last week, as reported in these columns, by Mr. Joseph Dickenson, Her Majesty's Chief Inspector of Mines, to the effect that the law officers of the Crown had given it as their opinion that section 51 of the Coal Mines Regulation Act, 1872, making it obligatory on the persons ordinarily employed in the mine to be out of the mine when gunpowder was used, included the night shift, including labourers employed in making ready the mine for operations on the following day, and that this interpretation of the meaning of the section would in future be enforced. In the discussion which ensued members expressed the opinion that certainly at the time when the Act was passed the impression was that the section was only intended to refer to the miners ordinarily employed in the mine and not to labourers engaged to attend to the ordinary safety of the mine. A definite resolution was come to with regard to the matter, but as the question is of considerable importance, and the strict carrying out of the section as laid down will seriously interfere with the working of some large collieries, the subject will no doubt be brought under further notice at a future meeting of the Association.

COLLIERY ACCIDENTS.—At the Stoke-on-Trent Police Court, on Wednesday, Mr. Edward Thompson, manager of the Whitfield Colliery, where an explosion of gas in February last killed 24 men, was charged with manslaughter—a coroner's jury having returned against him a verdict of culpable negligence—and he was committed for trial at the Stafford Assizes. The North Staffordshire Federation of Miners have agreed to take proceedings under the Employers' Liability Act against the Chatterley Coal and Iron Company on behalf of the friends of the deceased men.

PORT IMPROVEMENTS.—His Majesty the King of the Belgians has offered a prize of 25,000 frs. for the best essay on the subject of the improvement of ports situated on sandy shores. Mr. Lyster, engineer to the Mersey Docks and Harbour Board, has just received a letter from M. G. Rolin Jacquemyns, Belgian Minister of the Interior, stating that as the question is international, His Majesty desires the jury to be composed of members belonging to different countries. The King, therefore, authorised the Minister to ask Mr. Lyster whether he would consent to be one of the jurors to adjudicate on the essays.

MINING COMPANIES' DIRECTORS.—The *Statist* of to-day gives list of directors of some sixty mining companies, showing in a diagram frequently the same groups of directors act for various companies.—*Statist* Oct. 16, York-street, Covent Garden. Price 6d.

LEAD ORES.					
Date.	Mines.	Tons.	Price per ton.	Purchasers.	
June 27—Powell	20	£ 9 2 6	Walker, Parker, & Co.	
July 5—East Chiverton	50	13 0 0	Panther Lead Co.	
—West Chiverton	8	7 6	Lansberg and Co.	
7—Roman Gravels	150	9 7 6	Walker, Parker, & Co.	
8—South Darren	50	14 2 6	Sheldon, Bush, and Co.	

BLACK TIN.					
Date.	Mine.	Tons. c. q. lb.	Price p. ton.	Amount	
—Wheal Coates	8 5 1 24	£56 0 0	£463 6 0	Redruth

COPPER ORES.							
Sampled June 22, and sold at Swansea, July 5.							
Mines.	Tons.	Produce	Price	Mines.	Tons.	Produce.	Price
Burnt Ore	111	23½	0 12 6	Virneberg	24	6½	£3 11
ditto	129	24½	0 12 6	Italian Ore	51	14½	7 11
ditto	114	23½	0 13 0	ditto	51	14½	7 11
Berehaven	75	7½	4 3 0	Tan-y-Bwlch	27	22½	12 16
ditto	75	7½	4 2 6	ditto	41	12½	6 19
ditto	72	7½	4 1 0	Tigrony Pre.	8	36½	20 18
ditto	72	7½	4 4 0	Cronebane	4	61½	35 18
Virneberg	8	23	13 4 0	ditto	4	49½	28 18
ditto	49	13½	8 4 0	West Assheton	7	17½	10 1
ditto	54	10½	5 16 6				

TOTAL PRODUCE.					
Burnt Ore	354	£ 224 2 6	Tan-y-Bwlch	68	£ 631 11
Berehaven	294	1214 12 6	Tigrony Precipit... ..	8	167 4
Virneberg Ore.....	135	907 15 0	Cronebane Ore ..	8	254 0
Italian Ore	102	805 16 0	West Assheton	7	70 10

COMPANIES BY WHOM THE ORES WERE PURCHASED.			
Names.	Tons.	Amount.	
Copper Miners' Company	80	£ 408 0 0	
P. Grenfell and Sons	175½	109 13 9	
Nevill, Druce, and Co.	69	631 11 6	
Vivian and Sons	65	823 0 0	
Williams, Foster, and Co.	406½	1,526 7 3	
Mason and Elkington	24	85 16 0	
Landore Copper Company	157	691 3 0	
Total	978	£ 4,275 11 6	

TOTALS AND AVERAGES.			
21 cwt. Produce.	Price.	Per unit.	Standard.
Whole sale	8½	£4 7 7	10s. 8d. £79 12 3

COPPER ORES.					
Sampled June 22, and sold at Tabb's Hotel, Redruth, July 7.					
Mines.	Tons.	Price.	Mines.	Tons.	Price.
Mellanear	80	£2 8 0	Mellanear	45	£2 8 0
ditto	79	2 15 6	West Tolgus	66	5 14
ditto	76	3 0 0	ditto	52	3 17
ditto	75	2 13 6	ditto	45	5 6
ditto	73	3 8 0	East Pool	39	2 5
ditto	70	1 19 6	ditto	33	2 8
ditto	65	1 19 6	South Crofty	33	3 6
ditto	61	2 13 6	Olds' Precipitate	1	9 5

TOTAL PRODUCE.					
Mellanear.....	624	£1903 17 6	South Crofty	33	£ 108 18
West Tolgus	163	817 13 6	Olds' Precipitate..	1	9 5
East Pool	72	163 15 0			

Average standard	£20 9 0	Average produce	£23 7 6
Quantity of ore	893	Quantity of fine copper, 60 tons 8 cwt.	£3008 9 6
Amount of money	£3008 9 6		

LAST SALE.—Average standard... £24 16 0 | Average produce... £29 11 0 | Produce, 6½

COMPANIES BY WHOM THE ORES WERE PURCHASED.			
Names.	Tons.	Amount.	
Vivian and Sons	223½	£ 806 16 9	
Grenfell and Sons	187½	811 3 6	
Nevill, Druce, and Sons	182½	488 17 9	
Williams, Foster, and Co.	224½	700 19 0	
Mason and Elkington	75	200 12 6	
Total	893	£3008 9 6	

NO SALE on Thursday next, July 14.
Copper ores for sale on Thursday week, at the Royal Hotel, Truro—Mines parcels.—Devon Great Consols 808—South Canadon 410—Gunnislake 396—Mellanear 210—Glasgow Canadon 200—Bedford United 80—East Crobar 67.—Total 2171 tons.

GREAT GOLD DISCOVERY IN VENEZUELA.

THE MILITARY CALLED OUT.

The following is from a private letter—it speaks for itself:—"You will be surprised and amused to hear that I had to call the military to my assistance to enable me to obtain possession of my property, 'New Callao.' When the engineer returned to the property he found it in the possession of a mob of excited diggers, who had made a rush there when the discovery was made, and so impressed were they of the great value of the place that they told my engineer that if he attempted to take possession they would shoot him. He accordingly had to return, and I was obliged to apply for an escort of soldiers to enable me to drive off the usurpers. This, at all events, shows that others besides ourselves are cognisant of the value of the property."

(FROM THE "COLONIES AND INDIA," 25TH JUNE, 1881.)

"Advices have recently been received of an extraordinary discovery of gold, both in quartz lodes and alluvial deposits, about 90 miles south of Ciudad Bolivar, in Venezuela. The locality was discovered by a well-known mining engineer some two years ago, when a great rush was made there by a crowd of native mining desperadoes, who threatened to shoot anyone who appeared on the spot; but the discoverer had to fly for his life, and not until a military escort was dispatched with him in March last was he able to take possession of any part of the property."

(FROM "LA FRANCE POPULAIRE," SATURDAY, JUNE 25TH, 1881.)

"Quite recently a new mine has been discovered which promises to surpass in its marvellous output the most remarkable of those hitherto discovered. . . . The soldiers appeared on the scene, and the concession was obtained by the rightful owner; but this deed speaks for itself, without any comment, and now Venezuela is more sought for than California by European emigrants, and we shall soon no doubt see a greater influx of prospecting miners than ever came to Callao, of happy memory."

THE "NEW CALLAO," LIMITED,

HAVE PURCHASED 250 ACRES OF THIS VALUABLE PROPERTY WITH THE OPTION OF PURCHASING THE REMAINING 750 ACRES.

The company are in possession of the title deeds, and the necessary machinery is being ordered.

Mr. Skerthly reports it contains no less than three lodes, averaging 5 to 6 ft. wide, with strong indications of four others—the average yield giving 2 to 2½ ozs. of gold to the ton.

£20,000 has been privately subscribed. The balance, £30,000, is now offered for the first time to the public for subscription, in order to procure a settlement and quotation on the London Stock Exchange.

Mr. Robotham, late Surveyor and Mining Captain of the "El Callao" asserts that the "New Callao" will prove a richer mine than the "El Callao," and he has accepted the managership.

The "El Callao," with an original capital of about £50,000, has paid in dividends during the last four years upwards of £150,000 per annum. Their shares, £154 paid, are quoted at £1500, and the last dividend was £100 per share.

The LIST OF APPLICATIONS FOR SHARES will OPEN on WEDNESDAY, the 6th inst., and will CLOSE on TUESDAY, the 12th inst., for LONDON, and on WEDNESDAY, the 13th inst., for COUNTRY applications.

The "Potosi" Company, incorporated in London last December, with a capital of £350,000, is worth £550,000 at the present market quotations.

The "Los Frailes" have struck an extraordinary rich vein, and many others privately worked are making very large returns; without doubt, gold mining in Venezuela is only in its infancy.

His Excellency the Minister Plenipotentiary to the Court of St. James's and the Republic of France (Senor Don J. M. de Rojas) says—"The success of the Callao Mine has led to the great development of gold mining in the district, and many other properties have been most successfully developed."

The "New Callao," Limited,

NOW OFFERED FOR SUBSCRIPTION IN £1 SHARES, IS SITUATE TO THE WEST OF ABOVE-MENTIONED MINES.

Mr. J. A. SKERTCHLY, F.R.G.S., in his report, says:—"It is therefore, highly probable that the yield will be even greater than that of the 'El Callao,' it being one of the parent ranges whence these lodes spring, and I have no hesitation in recommending it as one of the best mining prospects in the district."

Mr. ROBOTHAM, in his report, certified by the British Consul at Venezuela, says:—"At a depth of 25 ft. the shaft encountered a vein 5 ft. in thickness. . . . Several assays have been made with 2 to 2½ ozs. of gold to the ton, although results of specimen quartz would yield far more if treated. . . . The lands contain, for the reason of their extent, other quartz veins traversing them, but to this date I have not had time to explore them; in fact, with a knowledge of a vein of 2 ozs. per ton on the property, 'I rest and am contented.'"

CAPITAL £75,000, IN 75,000 SHARES OF £1 EACH,

Of which 20,000 shares have already been privately subscribed and allotted;
15,000 shares are appropriated as part payment of the property;
10,000 shares are reserved; and the balance
30,000 are now offered to the public at par.

75,000

Payable as follows:—1s. per share on application; 6s. per share on allotment; the balance by calls of 3s. each, at intervals of not less than two months.

It is fully expected not more than 10s. per share will be called for.

DIRECTORS.

ALEXANDER WARD, Esq., Director Callao "Bis" Gold Mining Company of Venezuela (Limited).
Major FORTESCUE, J.P., Director Silver Hill Mining Company (Limited).
Sir RICHARD GETHIN, Bart., Chairman Quartz Hill Consolidated Gold Mining Company (Limited).
H. STEPHENSON, F.R.G.S., 26, Suffolk Street, Pall Mall, London, S.W.

BANKERS—Messrs. SMITH, PAYNE, and SMITHS, Lombard Street, London.

SOLICITOR—LEWIS DAVIS, Esq., 19, Moorgate Street, London, E.C.

MANAGER AT THE MINES—Mr. WM. ROBOTHAM.

BROKERS—Messrs. MEDWIN and HERMAN, 1, Angel Court, Throgmorton Street, E.C., and Stock Exchange, London.

SECRETARY—Mr. FRANCIS GANE (pro. tem.)

OFFICES—SOUTH SEA CHAMBERS, 97 AND 98, BISHOPSGATE STREET WITHIN, LONDON, E.C.

ABRIDGED PROSPECTUS.

This company is formed to acquire, work, and develop the valuable gold mining property, situate in Guayana, Venezuela.

It consists of 100 hectares (about 250 acres) of proved mineral ground, with full water and timber rights, at a nominal rent of £60 per annum.

The purchase consideration is very low, being only £15,000 in cash and £15,000 in fully paid-up shares of the company.

The following facts speak for themselves:—

1st. There are three discovered lodes on the property from 5 to 6 ft. in breadth, besides leaders in between, which is a most favourable mineralogical feature.

2nd. There are strong indications of four other lodes on the property.

3rd. The ore is identical in character with that of the celebrated Callao Mine, which has returned over two millions six hundred thousand pounds sterling.

4th. The most important of all considerations—No steam machinery will be required to be erected at present, as a swift river flows at the base of the range wherein the lode is contained, having sufficient water-power to drive 40 head of stamps.

5th. The net profit in working 40 heads of stamps would be very large, basing the calculation at 2 ozs. of gold to the ton, but the directors desire to be well within the mark, and taking the returns at only 1 oz. to the ton (while the "Potosi" in the six months of last year gave 3 ozs.) the profit on crushing 120 tons of quartz per day (which the 40 heads could easily do), after allowing a very liberal cost, and calculating of 300 working days to the year, would

be over £45,000, or over 60 per cent. on the entire capital of the company.

6th. Adjoining this property are 750 acres, which the directors have secured the option of purchase for six months from the 5th April last. In this option they are satisfied they have been very fortunate, as each day mineral ground is becoming of fabulous value, as it was during the gold rage in Australia and California—what was formerly bought by the square mile was afterwards sold by the square foot—and there is every indication of as great a demand for Venezuela mines, and even already inquiries have been made after this option with the view of purchase, and at such terms as would return 10s. in the £1 of the entire purchase money, but the directors anticipate greater results.

The only contract is one dated the 5th day of April, 1881, and made between Mr. Frederick Richter of the one part, and Mr. Francis Gane of the other part, as trustee for and on behalf of the company.

Prospectus, Report, and Forms of Application can be had on application to the secretary, solicitor, or bankers of the company.

In the event of no allotment, the amount paid on application will be returned in full.

Written applications, as follows, will be received:—

I desire to apply for [shares in the New Callao (Limited), and enclose £ being 1s. per share deposit.

Name (in full).....

Address.....

Description.....

Date.....

Mining Correspondence.

BRITISH MINES.

ASSHETON.—Joseph Gariand, July 6: There is no change of importance in the 60, east of boundary shaft, the lode maintains its usual size, and contains stones of lead ore.

BEDFORD UNITED.—R. Goldworthy, July 6: There is no alteration to call for any special remark in the 127 or 115, on the north lode, since last report.—Bridge Lode: In the 20, east of McCallan's engine-shaft, the lode has improved, being 4 ft. wide, worth 15s. per fathom. In the western end, in this level, the lode is from 6 to 7 ft. wide, composed of quartz, gossan, arsenical munda, and grey copper ore, worth for the latter 10s. per fathom. The lode in both ends has a very fine appearance, with every indication for further improvement.

BLUE HILLS.—S. Bennetts, R. Harris, July 2: The lode in the 80 east end is 1½ ft. wide, and worth 4s. per fathom. In the 42 east the lode is 2 to 3 ft. wide, and containing some good spots of tin; the cross-course seen in the level over has not been met with as yet. In the 30 east end the lode at present is much wider than usual—4 ft., and is worth 12s. per fathom.

BODIDRIS.—H. Hotchkiss, July 6: Maes-y-Pwll Lode: The 60, east of new shaft, is going forward in a very promising lode, with rich cubes of lead ore and blende. The slope in the bottom of this level is without change to notice; the ore continues to go down much the same as it was in the driving. I have no change to report on from Meadow shaft: we have not yet reached the foot-wall of the lode at the 130. The character of the ground and the spar is indicative of mineral, and the latter is becoming more disseminated throughout the end; progress at each point is being urged on with all speed.

BWLCH UNITED.—William Northey, July 6: The lode in the 50 fm. level, east of slide, is small, and I do not expect much improvement until we get into more settled ground. The ground in the 30 cross-cut is rather stiff for driving, being composed of hard floors of killas, with faces of copper, lead, and branches of quartz. The slope in the bottom of the 12 is yielding good lead ore. The lode in the 12 east under adit is worth 12 cwt. of lead ore per fathom. Marvin's lode, 15 fms. under adit, is 4 ft. wide, producing good saving work throughout. I have cleared No. 3 pit and workings, which is 35 ft. deep; the lode is composed of gossan, quartz, and light blue killas. I have suspended this for a time, and placed the men to cut foundation for new wheel pit. The masons will commence to build the same on Monday next. The dressing is going on as usual, and the machinery is in full work. The new jigg machine has been delivered on the mine, and I am daily expecting the connections, when we shall at once commence to fix them in their place.

CALLINGTON CONSOLS.—Thomas Gregory, July 7: The ground in Foake's engine-shaft, sinking below the 45, is of the most favourable description both for progress and mineral. In the 45 east, driving by the side of the lode, the structure is all that can be desired, and letting out a stream of water from the lode, which strongly indicates that good results will shortly be met with. We are now draining the water from Wheel Tonkin, and have put men to secure the shaft and clear the sand forthwith. We have broken some very good stones of tin from this part of the mine, and from all appearances at present I fully anticipate having a parcel for sale in a short time. The machinery is working well, and all other operations being pushed on with dispatch.

CARNARVON COPPER.—J. Roberts, W. Darby, July 6: Our progress in sinking the pump and driving the 90 end has not been so rapid during the past month as in previous month, owing to the ground having changed. In the pump, in the 80, the joint which we had, and which let down all the water as well, as made an advantage for opening the ground closed up, and prevented much of the water from going down, and caused also the copper to be pinched up much smaller than it was. The lode is now about 15s. per fathom, and looks very promising for an improvement. We may say again that we do not consider the ore in this pump to be on the same part of the lode as the ore in the 90, although it may belong to the same bunch, yet the lode appears to have made a splice between this end and the pump. The end in the 90 has been also in harder ground, and the driving has been more spare. During the month the lode has risen in value from 3s. to 40s. To-day there is some rock of quartzose in the middle of the copper, which reduces its value to 30s. per fathom. We feel very sure that in a day or two the rock will disappear again, and that the lode will be still better than we have seen it, but of this we will keep you well informed.

CATHEDRAL CONSOLS.—S. Davey, S. Davey, jun., June 30: Since the last report we have forked the mine to the 40, averaging, as we stated in last report, about 9 ft. in 24 hours. Our progress since starting the engine has been exceptional, having no lets up to this. The shaftmen are now preparing to cut bear-holes in the 40, as the increased quantity of water necessitates our dropping a larger lift below this level, and for which we have procured 12-in. pumps, which will be on the mine in a day or two, and no time will be lost in getting it to work.—Lawry's Shaft: The ground about this shaft is broken and in a disordered state, requiring to be close timbered, consequently our progress has not been quite so good these last few days. We have still men employed in the adit level putting in lagging, and taking up all the surplus water.

COED-Y-FEDW PANTY-BUARH.—B. Prince, July 6: There is a favourable change coming into the 107 west. The lode is opening up gradually, the component parts being of a very kindly nature. Water is now flowing very freely from the forebreast, and as these favourable indications occur just as we are entering a fresh bed or stratum of limestone, I think we shall soon have important news to send you.

CROOK BURN.—J. Craig, June 30: The millwrights have finished alterations to the engine, which is now pumping. We expect to have the water out of the mine and the men at work on Monday morning.

DENBIGHSHIRE CONSOLIDATED.—Abel Francis, July 6: The lode at the 112 north cross-cut still continues to look very well. We have now driven 30 yards through this continuous course of ore, and have opened up ground which should give us good returns for a long time to come. The slope in the back of this level fully maintains its value—1 ton of lead to the fathom. No other change. We have a good pile of leadstuff on the floors, and are preparing for the next sale.

DEVON COPPER AND BLENDE.—W. Skeewis, July 7: The clearing of the engine-shaft is progressing satisfactorily, and I expect the 62 will be drained by the end of this month. The rise in the back of the 50 west is communicated with the 40, which now thoroughly ventilates this part of the mine, and will enable the clearing of these two levels with much greater speed. The slope in the back of the 50 east is being worked by four men, at 30s. per fathom; lode worth 3s. per fathom for copper and blende. In the course of another week or so I hope to have one, if not two, more slopes at work. A very nice pile of copper and blende was brought to surface yesterday. The second boiler, which is now on the mine, is being put in thorough repair with all speed, and the crusher-house being built with a full pare of masons.

DEVON FRIENDSHIP.—Although it may seem something like repetition to a certain extent it will not be out of place to let you know what things we have completed on the mine and what we have still on hand. We have built a capital 90 ft. stack and successfully connected it with the calciner, finding a great improvement in the draught and the burning generally. The new shears and shaft pulleys are in order, and the Robey engine and steam capstan are fixed and working well. We shall finish the engine-house in a few days. The wheel pit has been cleared, and the masons are now bedding in the foundations for the bearings. The contractors are making fair progress with the wheel, and expect to have the axle (6 tons) on the mine in from two to three weeks. The other iron work is in a forward state, and we are preparing the timber work on the mine. The foundation for the angle-bob is cleared and the ground is prepared for flat rods. We have set a contract to a pair of men to excavate the necessary ground for a balance-bob at Bennet's shaft at 5s. per fathom; this will be finished this week. On Friday last we levelled the ground from Bennet's to the dressing-floors for a tramroad, and seeing we have a fall of 127 ft. we are of the opinion that we can so construct the road as to make the full wagon descending haul the empty one up. We shall commence upon the tramroad immediately. You will see from the above that we are pushing on the work energetically and are making the most of fine weather. The lode in the adit end is 4½ ft. wide, yielding 6 tons munda per fathom. It has a very kindly appearance. Slopes unaltered.

DEVON GREAT CONSOLS.—L. Richards, July 7: Wheel Emma: Inclined Shaft: In the crosscut north at the 130 east, the north part of the new south lode has been cut into from 6 to 7 ft., which appears to be its full width. The cross-cut will, however, be extended a little further to prove if any other portion still exists in that direction. It is of a very fine character, being composed of capel, quartz, peach, munda, and a little good quality copper ore. In the 137, east of Friend's cross-cut, the lode is 5 ft. wide, of good promise, and producing some saving work of copper and munda ores.—New Shaft, New South Lode: In the 205 west, on the north part of the lode, the lode continues to produce 2 tons of munda and a little copper ore of good quality. In the 115 east, the lode is 2½ ft. wide, consisting of capel, quartz, and small quantities of copper and munda ores. In the 130 east the lode is 2 ft. wide, producing a little of both copper and munda ores. In the 90 east, the lode is 2½ ft. wide, composed of capel, quartz, peach, munda, and a little copper ore.—Railway Shaft: In the Railway shaft, now 15½ fathoms below the 130, the ground continues without alteration. In the 150 west, on the north part of the lode, the lode is 5 ft. wide, producing 2 tons of munda per fathom, and some copper ore of good quality. In the 175 west, on the south part of the lode, the lode is 4 ft. wide, of a very promising character, and producing some saving work of copper and munda ores. In Rich's winze below the 160, on the south part of the lode, the lode is 5 ft. wide, and worth 5 tons of copper ore and 3 tons of munda per fathom. There is no important alteration at any of the other points of operation throughout the mines.

DEVON GREAT UNITED.—Isaac Richards, July 7: The men are getting on well with putting in skip-road, &c., in Willeford's shaft, the work being completed as far down as the 60. In the 60, west of Willeford's shaft, on the Capel Tor lode, the lode is 2 ft. wide, composed of capel, quartz, munda, and saving work of copper ore. In the 50, west of Watson's shaft, the drive is at present being carried by the side of the lode for more speedily progress.

D'ERESBY MOUNTAIN.—J. Roberts, W. Snodde, July 6: The No. 6 end is looking very promising indeed. We have opened on the lead part of the lode about 1 ft. wide, but have not yet ascertained the width of the ore part of the lode. We have never seen such beautiful matrix in this lode as here, and the lead in this matrix is more solid, and generally in the form of cubes. For the width we have opened it is worth 1½ ton to the fathom, and we are very sanguine that it will improve as we go on, and there is but little doubt that we shall soon reach the old men's rich course of ore. The slopes, which are on the opposite side of the lode, have fallen off somewhat in value, and are not yielding so much lead as they were a little time ago, but this may be looked upon as only temporary as the lode is subject to great changes.

EAST BLUE HILLS.—S. Bennetts, July 7: The lode in the adit end east is somewhat wider than it was a week since, and more tinny also. At present it is 2 ft. wide, and worth about 10s. per fathom. A few days since a capital leader of tinstuff was discovered near the back of the end; this rich stuff has not yet reached the bottom of the end, but we think it will do so in a few feet further ahead. The lode, however, is more tinny throughout. In the 25 east there has been nothing further discovered than broken down stulls, which are being cleared as far as possible.

EAST CLADON.—J. Kellow, July 6: I beg to hand you the following report of our setting on Saturday last:—To drive the 175 cross-cut south 1 fathom stent, by nine men, at 25s. per fathom, driven 1 fathom. To drive the 150 east, or caunter, 1 fm. stent, by six men, at 20s., driven 1 fm. 2 ft. 6 in.; lode still continues small. To drive the 90 east, on Fawcett's, 2 fms., stent by six men, at 13s. 10s., driven 2 fms.; lode here has increased in size, being now 2 ft. wide,

and the water drains 13 yards below the 80. The mine is thus forked to a total depth of 73 yards. Every exertion is being made to get down to the 80 yards level to get at the rich deposit of ore left there. It is stated that when the work was suspended here from insufficient pumping power huge stones of solid galena were left in the bottom; 3 tons were raised in a few days, and the lode valued at 40¢ per fathom, though some estimated it at double that amount.

[illegible]

On the outer ends of the two shafts carrying the pulleys on which the endless chain revolves are two pulleys, over which the scrapers

TO CAPITALISTS AND INVESTORS.

The Puzzler Code.

Situated at RICO, COLORADO, gives every indication of becoming a grand Mine, which will pay enormously when opened up; it contains rich ore, which can be taken out at small cost. In order to open up this Mine, the Directors of the RICO SILVER MINING COMPANY OFFER FOR SALE ONE THOUSAND SHARES, full paid, at £1 per share, in blocks of 50 shares, or multiples thereof. The Company is a small one, owning a most valuable Mine, and for that reason presents a far better opportunity for great annual dividends than do the large companies organised to work high cost mines under heavy current expenditure.

Investors and capitalists, who prefer a real legitimate Mining Enterprise to mere speculation in Mining Shares, are invited to place money in this undertaking, which promises to be so highly remunerative. Colorado Gold and Silver Mining stands without a rival in the world as a wealth-producing industry.

English investors who desire to purchase shares may deposit the purchase money with the Union Bank of London, to the credit of Preston, Kean, and Co., Bankers, Chicago, for the use of the Rico Silver Mining Company, and advise me, by letter, of having made the deposit, stating the number of shares wanted, and the name and address of the person to whom the certificate is to be issued.

J. J. WEST, PRESIDENT.

The President of THE RICO SILVER MINING COMPANY IS NOW IN ENGLAND, and will be happy to RECEIVE COMMUNICATIONS from Investors, and to send PROSPECTUS, REPORTS, &c., on application.

Address, J. J. WEST, care of Messrs. Pim Brothers and Co., 30, Milk Street, E.C., London.

HART'S PNEUMATIC MINERAL SEPARATOR.

This machine, working on the jigg principle, concentrates gold and auriferous pyrites, silver, tin, copper, lead, blende, and other stamped or finely crushed minerals, termed fine sands and slimes.

The primary condition for separation of mineral particles differing in specific gravity is that they be free to move in a fluid medium. Air fulfils this condition; water, on the contrary, will pack fine particles together, forming a cake or a paste, which explains the more rapid and more complete separation in air. The multiplication of processes and of machines indispensable in the water system is consequently avoided, with the losses that attend it.

The PNEUMATIC MINERAL SEPARATOR works in accordance with the laws of air in motion resisted, but not obstructed, by the particles under treatment, and is the only single machine which completes the separation of fine sand and slimes.

Patent Rights for Great Britain, India, Colonies, and Foreign Countries for Sale.

Address, "H. P. M. S.," MINING JOURNAL Office, 26, Fleet-street, E.C.

Notices to Correspondents.

Received,—"G. J. N." (South D'Ersey Mountain)—"A. E. J."—"Verdad" (Ouro Paeo)—"B. G."—"G. H. P." (Dublin)—"Constant Reader" (Manchester)—"Shareholder" (Wheat Russell)—"Chemist"—"We shall be glad to have the particulars—"W. P."—"D. N."—"Shareholder" (Gunnislake, Chiters)—"J. L."—"A. T."—"An Old Shareholder" (Sortridge Consols)—"W. N. G."—"We shall notice the matter in next week's Journal."

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, JULY 9, 1881.

FATAL ACCIDENTS FROM "FALLS" IN MINES.

The deepest attention is paid to deaths from explosions in mines by Parliament and the public, yet no notice whatever is accorded to that class of so-called accidents by which the greatest number of lives are annually lost in the working of mines. During the last 11 years 4917 persons were killed by falls of roof and sides, and 2871 by explosions of gas. The latter evoked a large amount of public sympathy, large sums of money having been subscribed for the relatives of the killed, but no one scarcely ever heard of money being given towards the maintenance of the larger body of sufferers—those whose husbands and fathers were killed by "falls." These accidents, if such they may be called, do not produce more than one or two deaths at a time, and, therefore, do not attract attention, but when the list comes to be made out at the end of the year it is then seen that "falls" are the most prolific source of danger. It may, however, be said that most of the fatalities from "falls" are really preventable, and that the miner is the cause of his own death. Many of them become so injured to danger that they will run the greatest risks for the purpose of getting a trifle more money. The getting of minerals is what the miner looks to as being to him directly remunerative, whilst timbering brings him no money value in return for the labour expended in supporting the roof, he is, therefore, induced to pursue the former more vigorously and neglect the other, unless the danger is very clear and unmistakable.

In the North of England in the coal mines the setting of timber is done by persons specially appointed for the purpose, and the result is that fewer persons are there killed from falls than in any other part of the kingdom. We, therefore, think that the same system should be more generally adopted, or that the workmen should be visited at stated times by persons in authority to see that the miners were not neglecting their own safety. At the surface men require to be looked after to see that they do their work properly, and with advantage to themselves as well as their employers. If labour at the surface has vigilant supervision, as it has, surely more is required underground, where the danger is so much greater. If the working places in mines were visited three or four times a day the number of deaths from falls would be much less than they are, for the roof could be examined and its state pointed out. A sufficient quantity of timber should also be provided, cut to the required length and size.

In main roads, where a great many accidents happen, it should be laid down as an absolute rule that no overhanging stone which might become loose should be left unsupported or unremoved, and when broken and rotten timber requires replacing by what is good and sound it should be selected from the stock at the surface. Miners should not be allowed to cut and prepare timber, and convey it into the working places. Timber should never be drawn where the operations would be attended with any degree of danger. Were these rules carried out there would be a great decrease in the annual list of "deaths from falls," and it is to be hoped some means will be adopted for their enforcement in the interest alike of workmen and employers.

BESSEMER COPPER.

In connection with the production of steel the system of Bessemer has been the most important event of the age, and it now appears it can be adopted for other purposes equally advantageous. It is now stated that pure copper can be extracted from the ore by means of the Bessemer process, and the start, singular to say, has been made at Lyons. It appears, according to the Revue Industrielle, that whilst engaged in melting down some old copper a piece of phosphorus bronze by some means or other found its way into the molten mass, when the chief of the department, who was engaged watching the operation, was surprised to see the phosphorised metal, when exposed to the heat, increase in temperature far beyond that of the surrounding copper, and ultimately arrive at a dazzling white heat. The phosphorus whilst burning disengaged a vast amount of heat, which soon liquefied the copper. The first effort was simply made to burn off the sulphur combined with the metal in the form of pyrites, by means of a powerful blast. The difficulty which presented itself appeared to be towards the end of the process, the charge having always been cooled down too much by the operation, but that was overcome in the manner we have described. In studying the order of combustion in air of the substance capable of being mixed with pyrites it was found that sulphur burnt first, then certain other metals, and last of all the phosphorus. It would thus appear that phosphorus, the greatest enemy known to the iron and steel maker,

may be made a most valuable friend and agent to the copper maker, for it would seem that all that was really necessary in order to prolong to any length the Bessemer operation in copper refining is simply to add a small quantity of phosphorus to the charge, and thus obtain, after the combustion is complete and finished, a cake of pure copper. The process, if so successful as it was stated to have been, would to some extent affect the price of copper, but it would be most valuable to companies engaged in raising copper ore, which could easily be smelted where it is worked. It is stated that a company has been formed at Lyons for the purpose of carrying out the new process, and works are being laid down for the purpose, so that those connected with copper mines in this country will, no doubt, hear more of it. Many of the most important inventions in connection with metallurgy, engineering, and mechanics have in the first instance been the result of accident, and the one we have alluded to may be another to add to the number. We shall, therefore, look forward to hearing more as to the Bessemer system being applied to copper, and it is to be hoped with as much success as it has in relation to steel.

THE COPPER TRADE.

During the quarter ending June 30, 1881, the quantity of copper ore, the produce of Cornwall and Devonshire, sold at the Cornish Ticketing, was 9455 tons, which contained 602 tons 15 cwt. of fine copper, and realised 29,798l. 16s., being equal to an average of 3l. 2s. per ton of ore, and 49l. 8s. 10d. per ton of copper in the ore. During the same period the British, colonial, and foreign ore sold at Swansea amounted to 6644 tons, which contained 562 tons 16 cwt. of fine copper, and realised 31,903l. 12s. 0d., being equal to an average of 4l. 16s. 1d. per ton of ore, and 56l. 1s. 5d. per ton of copper in the ore. The average produce of the ore sold at Cornwall Ticketings was 68 per cent., whilst that sold at Swansea gave an average produce of 84 per cent. From this it will be seen that the aggregate sales by ticket were 16,099 tons of ore, containing 1165 tons 11 cwt. of fine copper, realising 61,702l. 8s. 0d. The subjoined is a summary of the periodical sales at the Cornwall and Swansea Ticketings respectively. The ores sold at the Cornwall Ticketings were—

Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.		
April 21..	£97 14	0..	5 1/2	6..	9s. 11d.	2,720	155t. 8c..	£ 7,707 14 6	
May 5..	88 10	0..	7 1/2	3 1/2	6..	1 1/2	1,024	74 6..	3,759 3 6
19..	73 13	0..	7 1/2	3 1/2	6..	9	2,094	149 8..	7,252 1 0
June 2..	90 11	0..	6 1/2	3 1/2	6..	9 1/2	958	63 17	3,143 11 6
23..	94 16	0..	6 1/2	2 1/2	6..	9 1/2	2,659	160 16	7,931 5 6
Total for the quarter							9,455	602 15	29,798 16 0
Quarter ending March, 1881							9,370	641 16	25,089 19 6
Quarter ending Dec., 1880							10,174	698 9	36,350 7 0
Quarter ending Sept., 1880							10,433	705 17	36,505 17 0
Total for the year							39,932	2646 17	137,744 19 0
Showing a quarterly average of							9,983	661 14	34,436 5 0
Corresponding quarter, June, 1880							9,936	669 13	37,566 18 0

The ores sold at the Swansea Ticketings were—									
Date.	Standard.	Prod.	Price.	Per unit.	Tons.	Fine cop.	Amount.		
April 5..	£83 5	9 1/2	45 11 5.	11s. 3d.	1,920	103 10c.	£10,699	14 6	
28..	82 16	10 1/2	4 12 10	11 4	1,181	96 15	5,483	8 0	
May 10..	81 0	11 1/2	4 17 11	8 1/2	1,702	149 0	8,322	3 6	
31..	82 2	6 1/2	4 0 11	0 1/2	1,838	133 11	7,398	8 0	
Total for the quarter.....					6,641	562 16	£31,903	12 0	
Quarter ending March, 1881.....					5,719	446 14	26,329	19 6	
Quarter ending December, 1880.....					5,133	448 16	24,514	12 6	
Quarter ending September, 1880.....					7,976	674 2	37,549	12 0	
Total for the year.....					25,519	2132 8	£120,298	0 0	
Showing a quarterly average of.....					6,380	533 2	30,074	10 0	
Corresponding quarter, June, 1880.....					6,520	535 14	31,460	10 0	

AMERICAN LOCOMOTIVE BUILDING.

The Americans are making great efforts to develop the manufacture of locomotives, not only in their own country but throughout the world. The immense development of American railroads, of which somewhere about 100,000 miles have been completed, of course, in itself secures a good current of orders to American locomotive builders. But they are not content with this, but are endeavouring to obtain orders for their engines in Mexico, South America, Australasia, and, indeed, all over the world. We learn from Philadelphia that the Baldwin Locomotive Works, of that city, which are the greatest establishment of the kind in the United States, will do an unprecedented business during 1881. Last year the works delivered 517 engines, but it is calculated that this year they will turn out some 80 more. Orders are said to be pouring in from all parts of the United States as well as from Mexico. Between 50 and 60 Baldwin engines have gone to Mexico since New Year's Day. A number of steam motors for Sydney, New South Wales, are also in hand. These are circumstances which appear to us to deserve the serious attention of all engaged in mechanical industry in Great Britain. Hitherto English firms have had a practical monopoly of the locomotive trade of the world, France, Belgium, Germany, and the United States excepted. But in this department of industry, as well as in many other branches of human efforts, we are confronted with the competition of the United States. It is true that the great Baldwin Works, to which we have just referred, are the principal establishment of the kind to be found in the American Republic. But, nevertheless, there is a great deal of locomotive building also going on in the States of New Jersey and Rhode Island, while the manufacture of railway engines has also been recently commenced at St. Louis. Moreover, the American locomotive has been greatly improved of late years; and while American engines still retain their distinctive features their speed has been materially increased.

There are two points in which American locomotive builders show much adroitness—viz., the readiness with which they produce an engine which will run with safety over a road bed which an English engineer would pronounce unworkable, and the ease with which they arrange for the consumption of such fuel as may most readily come to hand. The pioneer railways of the United States have been very rough and primitive affairs, and some lines which have been carried out during the last 10 or 15 years in Colorado and California are distinguished by grades, curves, and general difficulties of the most startling character. Still with the help of the bogie truck, American engines keep to the rails under circumstances and conditions under which the heart of an English engineman would not unreasonably quail. We do not say that trains run at a speed of more than 60 miles an hour over the lines of Colorado and California; that is a speed reserved for older and more thoroughly completed lines; but still the American locomotive is quite at home, and does useful work upon road-beds which would be considered impracticable even by young and stout-hearted English railway men. The ease with which the American locomotive adapts itself to the fuel available in young and imperfectly developed colonies or States is also remarkable, and affords another emphatic of the time.

worn proverb that "necessity is the mother of invention." If English locomotive builders hope to compete successfully with American firms in such communities as Mexico, Brazil, Chili, or New Zealand, they must not adhere too obstinately to old ideas, but they must endeavour to adapt themselves to the circumstances and requirements of their remote but still valuable clients.

CALIFORNIAN HYDRAULIC MINING AND BRITISH CAPITAL.

From the long period during which gold has been obtained by simple washing in countries where mechanical processes are comparatively undeveloped, it may safely be said that more of the precious metal has been added to the world's wealth by that process than by any other; and although, as might naturally be supposed, the simple washing process could not be carried on beside gold quartz mining without undergoing modifications to adapt it to modern requirements, it has still retained its principal attractions. The sluice, says a competent authority, though perfect as a device for washing the dirt, was not the last invention in placer mining. The shovel did not furnish earth to the sluice fast enough, and the wages of a dozen workmen must be saved if possible. In 1852, Edw. E. Mattison, a native of Connecticut, invented the process of hydraulic mining, in which a stream of water was directed under a heavy pressure against a bank or hill side containing placer gold, and the earth was torn down by the fluid, and carried into the sluice to be washed; thus the expense of shovelling was entirely saved. The man with the rocker might wash one cubic yard per day; with the tom he might average two yards; with the sluice, four yards; and with the hydraulic and sluice together, 50 or even 100 yards. The difference is immense. A stream of water rushing through a 2-in. pipe, under a pressure of 200 ft. perpendicular, has tremendous force, and the everlasting hills themselves crumble down before it as if they were but piles of cloud blown away by a breath of wind or dissipated by a glance of the sun.

It is the most approved system of hydraulic mining here mentioned that is carried on at the Blue Tent Consolidated Hydraulic Gold Mines of California, whilst the Fall Creeks Lakes Water Company supplies the fluid with which the Blue Tent's everlasting hills are crumbled, and the two companies—both being going concerns in full operation—are to be amalgamated as the YUBA RIVER GOLD WASHING COMPANY, whose prospectus will be found in another column of to-day's Journal. The property which the Blue Tent Company owns, and which is considered one of the largest and most valuable of the gold-bearing gravel beds of California, consists of 490 acres of gold-bearing gravel of an average thickness of 400 ft., situated within one hour's drive to the north-east of Nevada City, Nevada County, California; and as a valuable water-right, a canal 31 miles in length, of the capacity of 25,000,000 gallons per diem during the water season (a quantity about equal to that carried by the largest of the metropolitan water companies) and two smaller aqueducts. It is observed that the quantity of gold as yet untouched in the auriferous gravel beds of California is enormous, and that taking the area of the company's auriferous alluvium at 400 acres, and the thickness at only 225 ft., the gold contents of this property, based on the average yield of the last three years from the gravel of the South Yuba bank, reaches the high figure of 3,700,000l. sterling. The cost of getting the gold should not exceed 45 per cent. of the gross yield.

The incoming shareholders, as is very properly pointed out, will have the full advantage of the large amount of work already done—in fact, it is considered that all the uphill work has now been got through. The Blue Tent Company has been engaged since the latter part of 1873 in building canals and reservoirs, and in developing the property generally. During this time the total produce of gold has been 122,000l. sterling, of which 81,000l. was from the South Yuba bank alone; and the whole of this amount (after defraying working expenses and the necessary charges for interest on debentures and loans) has been expended on permanent improvement of the property. A new tunnel of large size is nearly completed to the face of the South Yuba bank (only 340 ft. remaining to be driven), through which the rich bottom gravel in the centre of the property will be washed off. The property will then be in full working order. It is confidently believed that on the completion of the company's tunnel the concern will rank amongst the very largest of similar undertakings, and the property will then be worth 183,750l., according to the valuation of Mr. Thomas Price, of San Francisco, whose name as a competent mining engineer, is well known to the readers of the *Mining Journal*.

The Fall Creek Company owns a canal eight miles long, a saw-mill, and seven lakes in the mountain range, which forms part of the watershed of the South Yuba river. The canal brings water from the company's lakes to the head of the Blue Tent Company's canal on the South Yuba river, and it is also used to float timber to the same place. The lakes and reservoir sites belonging to this company cover an area of 200 acres, and their storage capacity can be largely increased. The Fall Creek Company has, out of the profits earned by the sale of water and lumber to the Blue Tent Company, paid in 1879 and 1880 a dividend at the rate of 5 per cent. per annum. The purchase price, having been fixed by the vendor companies upon the assumption that the present shareholders will supply the additional capital to be subscribed, is considerably below the appraised valuation, and the new board is composed of members of the Blue Tent and Fall Creek Companies, with the addition of Mr. Tufnell Southgate, chairman of Roman Gravel Mining Company, and Mr. H. Wilson, of Tankerville Great Consols, whilst Mr. Peter Watson, the chairman and managing director of Devon Great Consols, and director of the Great Laxey Company, has accepted the office of London manager. Mr. Thomas Price reports that on completion of the new tunnel and Lake improvements the joint properties of these two companies will be of the value of 214,000l., and will be capable of earning a profit of not less than 136,000l. or say 27,750l. per annum, the whole of which will be applicable to dividends after payment of the debenture interest, 4710l. In other words, the estimated profits will be equal to a dividend of 15 per cent. on the capital of the company.

THE MINERAL RESOURCES OF SOUTH-WESTERN VIRGINIA.

From the numerous and elaborate papers upon the mineral resources of Western Virginia which have from time to time been written by our valued correspondent, Mr. C. S. Richardson, M.E., probably few parts of the United States are better known to the readers of the *Mining Journal*, and renewed attention will now be attracted to the region by the publication of the report of Mr. C. E. Boyd, M.E., on the Resources of South-West Virginia, showing the mineral deposits of iron, coal, zinc, copper, and lead (New York: John Wiley and Sons, London: Trübner and Co., Ludgate-hill), which gives so complete a review of the entire subject that those disposed to assist in the development of either the mines or industrial resources of the country will have ample opportunity of judging of the relative prospects of the several localities. The report being already as concise as it is possible to make it an epitome of the volume would be out of the question; it must, therefore, suffice to notice some of the mentions made of the minerals, taking the several counties—Montgomery, Pulaski, Wythe, Smyth, Washington, Giles, Bland, Tazewell, Russell, Scott, Lee, Wise, &c.—in rotation. Referring to the gold-bearing rocks of Brush Creek, Montgomery county, it is stated that the washings so far show the gravel to yield about 33 dwts. to the hand per day with rude sluice boxes. These same strata cross the south fork of Roanoke river, about the line between Montgomery and Floyd counties, and ought there in the deeper gorges to yield more heavily than anywhere else. A large vein of pyrites containing copper, lead ore, and iron ore are referred to as existing in this county.

The natural features of Pulaski county, says Mr. Boyd, are nearly all of that order which, if known universally, would fix the attention of the least observant, whether it was invited to the scenery, made up of mountains, forests, and broad streams, great grass fields, dotted with herds of fine cattle, or those extraordinary exhibits of

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mineral, material, and mineral waters that mark the belt in which Pulaski is situated. Though small in the extent of its territory in comparison with the other counties of this section, Pulaski is making a wide and favourable reputation for the almost fabulous quantity of its iron ore and the extent of its fine coal fields, to say nothing of the ores of zinc, lead, and other minerals. In addition to this, it is making giant strides to obtain a position as the leading manufacturing county. In the development of its different ore fields, Wythe county is making rapid strides towards a position of commercial importance. If conditions of transportation could once be made to assume a correct relation to the different interests of agriculture, mines, and manufactures Wythe would not be long in taking a leading position among the countries most noted for high commercial prosperity; and this comparison might very safely be extended to the most favoured localities throughout the whole country. In Smyth county there are vast deposits of iron and manganese of superior character, and these magnificent veins and deposits lie sometimes within and generally but a mile or so from grass and grain lands unsurpassed in fertility. Washington county has fine iron ores, as well as ores of copper, lead, and zinc, plaster, salt, marble, and barytes. It is rare, says Mr. Boyd, that Nature repeats such a combination of fine ores in veins and deposits, mineral waters, superior grass and grain lands, together with noble forest, river, and lake scenery as is presented in the area covered by Giles county. In Bland county there are iron ores, manganese, coal, lead and zinc, and barytes. In Tazewell county there are the same, with the addition of copper and salt. Russell county has iron ores, coal, lead and zinc, and barytes. Scott county has coal, iron ores, manganese, lead, salt, marble, barytes, and fire-clay; and in Lee county they have coal, iron ores, lead and zinc, limestone, barytes, and kaolin. Buchanan, Carroll, Grayson, as well as Ashe and Alleghany counties, which, although in North Carolina, come within the same mineral region, are all worthy of attention for their mineral wealth; and with regard to the gold in the Floyd county, Mr. Boyd remarks that on the Floyd county side of the river there is no stream answering to that of Brush Creek. Consequently the same formation, though containing, no doubt, the same percentage of free gold is not so concentrated. The details given in the volume, which is beautifully illustrated, are in every case very full, and from the manner in which they are related there can be no doubt as to Mr. Boyd having a personal knowledge of the facts which he records, and which should certainly suffice to secure for South-West Virginia the cordial support of the capitalists, by showing that there is an ample field for remunerative enterprise.

INDUSTRIAL PROGRESS IN GOLD MINING.

The history of gold mining in the United States is of interest to a large number of readers, and the reference to the almost forgotten infancy of the United States gold industry cannot but prove encouraging to those now engaged in gold mining in India, since it seems evident that the Pacific states of the Union were no more entitled 30 years ago to be considered a virgin auriferous region than is India at the present time. An interesting little review of the Gold Mining Industry of the United States has just been published by the Mears Chlorination Company, of Philadelphia (Trübner and Co., Ludgate Hill). It will, no doubt, surprise many to learn that although American gold and the Pacific States are almost invariably associated, it was in the Atlantic States that that industry had its origin. In 1799 there was found in Cabarrus County, North Carolina, a golden nugget of great value. In 1825 the pioneer prospector—Matthew Barringer—made the first discovery of vein quartz in the United States. In 1830 Georgia was credited in the United States Mint with the important deposit of \$212,000. The second period of gold mining interest was from 1848. California was once a Spanish possession; Spain had derived wealth from her distant colonies, therefore it was argued, without due regard for the connection of the conclusion with the premises, that therefore California must be auriferous; so that when the discovery of gold in the West was made—though tradition has nothing to do with it—the public were quite ready to receive and act upon the gratifying news. The third period commenced in 1858, and an abundant crop of failures soon followed, because Eastern investors then knew literally nothing of miners, mines, or mining, a knowledge of all three of which has been found to be essential to a successful management.

The fourth period, commencing about ten years later, had the advantage of vast stores of accumulated mining information in the reports of the United States Commissioners and various scientific publications; whilst mining schools have educated American mining engineers and experts, and the methods of working ores have been improved, and machinery cheapened. In the meanwhile a superficial area of metalliferous deposits has been partially explored in 15 States and Territories, and sufficiently prospected to show the existence of the precious metals to be inexhaustible for centuries, however stupendous may be the outlay of capital and energy. The history of gold-finding in the United States having been disposed of, articles are given on the world's accumulation of precious metals in 1878, on the areas of gold distribution, on the gold areas of the United States, on the geological occurrence of gold, on auriferous veins, fissures, or lodes, on gold washing or alluvial gold, on the working yield of auriferous ores, on the stamp-mills and attachments, on the present treatment and methods of working sulphides, on the loss of gold by stamp-mill, on the present condition of industrial gold mining, on the Mears improved method of extracting the precious metals from auriferous sulphide ores by chlorination, and on the applicability of the process to the extraction of silver and copper. There is a full appendix, giving notes upon the details connected with the several articles, so that a fairly complete knowledge of the entire subject can be obtained from the book, and many may discover the means of making properties remunerative which have hitherto been a source of loss and disappointment.

THE MINERAL RESOURCES OF ARIZONA.

Arizona has hitherto received considerable less attention from capitalists, whether American or English, than probably any of the Western States, yet she certainly offers equal attractions and promises to repay equally well for development. Nor is there any excuse for this neglect, for two or three years since Mr. R. J. Hinton, of the San Francisco Evening Post, gave as good an account of Arizona as Frank Fossett furnished of Colorado. ("The Resources and Natural Wealth of Arizona: a Handbook to its History, Towns, Mines, Ruins, and Scenery." By R. J. Hinton. San Francisco: Payot, Upham, and Co. London: Trübner and Co., Ludgate Hill.) And as it is now likely that various mines in Arizona will be brought into the market the book will be well worth the study of intending investors. After giving in the earlier chapters an answer to the question Where and What is Arizona? an Historical Sketch, and an account of the Physical and Geological Features; he treats of the Territory's Mineral Resources, and of the Mines, Mills, and Locations. The chapter Over Valley and Mesa is an interesting one; and in that on the Upper Santa Cruz Valley there are references to the mines about Tubac, the chief impediment to working which appears to be the inconvenient proximity of Apaches, the most fierce and barbarous tribe of Indians in America. Four managers of the Santa Rita Mining Company—Stark, Wrightson, Grosvenor, and Hopkins—were killed during the years 1861 to 1863. A good account of the discovery of gold and silver into the Santa Rita range in 1769 is given in an old Spanish work on the Apostolic Labors of the Jesuits. Many persons amassed large sums, but the robbery by the king of Spain, who claimed the silver, and the hostility of the Indians, so discouraged the treasure hunters that the mines were abandoned.

The description which Mr. Hinton gives of the towns of Arizona, of the climate, of the fauna and flora, and agricultural resources, can leave no doubt that as soon as the mines are got to work with the modern skill, energy, and appliances Arizona will support a large civilized population, and afford great facilities for obtaining good results. In some cases, however, Mr. Hinton would appear to let his enthusiasm exceed his accuracy—planchas de plata, for example, might mean plates of silver, not planks of silver; and it may be from his having sought for a mine producing silver in the latter

form that failed to discover it. Its exact position, he says, is now unknown, though the neighbourhood in which it was found is very plainly indicated by the old records and letters. Don Manuel Retes, in an essay on the mineral resources of northern Sonora, says this mineral deposit, situated 31½° north and 111° west of Greenwich, is described by a Yaqui Indian about the commencement of the last century. Distant from 4 to 5 leagues from the mine of Arizona about 15 miles from the town of Tumacacuri, the nearest settlement; about 25 miles from the Presidio of Santa Cruz; nearly 90 miles from Ures; and about 130 leagues from Guaymas. The silver was discovered in sheets of different sizes, from which the name Planchas de Plata originated. They were found almost on the surface, perfectly pure, and without adhering to any foreign substance, in a flexible state capable of receiving impressions, and only hardening on being exposed to the atmosphere. The region which produces them is an earth of the colour and very much resembling ashes, which extends in visible leads more or less wide, and in parts subdivided into veins all over the hills and mountains adjoining the main deposits. One sheet weighing 149 arabas (1½ ton), and one of 21 arabas (¼ ton), were taken out; and altogether 400 arabas, or 5 tons, were extracted. Another mine of very rich silver was the Arizona, the position of which is also lost. About 18 miles south from Tucson are the San Xavier and the Pima Mines, which are of some importance. The former has been long known; and partially worked by Mexicans. The ore consists of argentiferous carbonates and sulphurets of lead, estimated worth 40 to 65 per cent. of lead and \$65 per ton for silver. The territory is beyond question deserving of the attention of capitalists; and to enable them to employ their capital with advantage they cannot have a better guide than Mr. Hinton's book.

THE PROFITS OF THE INDIAN GOLD MINES.—The celebrated case of Harris v. Fleming still continues before Vice-Chancellor Hall, but there appears to be a probability of its being concluded in the course of next week. The plaintiff's case is closed, and on the side of the defence Mr. Morton, one of the defendants, has been examined and cross-examined, and his evidence, curiously enough, confirms that of the plaintiff. On Wednesday the examination of Mr. Maxwell commenced, so that there will soon be evidence on record which will permit of an opinion being formed even before the decision of the judge is actually given.

MINING ON LAKE SUPERIOR.—The valuable silver mining property, 10,000 acres in extent, at Pie Island, Thunder Bay, will it is believed be got into full operation during the present year. The capital—1,000,000—of which 900,000 is taken as purchase money, is said to have been raised chiefly in New York, whence the ore will be sent for smelting. The board of directors is an influential one, and the working capital of 100,000 will, it is considered, be ample to develop the mines, and large profits are anticipated.

CANADIAN MINING.—The Newfoundland copper mines are progressing favourably, but it is generally considered that the high price which has been placed upon the property recently sold in London—Bett's Cove, and other mines—will make it so nearly impossible to give dividends to the shareholders that even if the capital demanded has been obtained the disappointment which will follow will rather check than otherwise the development of the mineral resources of the province. A systematic mining survey of Nova Scotia at the joint expense of the Dominion and Nova Scotia Governments is about to be made by Mr. Dawson, of the Canadian Geological Survey; it is hoped that the efforts will bear better fruits than those of the late Mr. Heatherington. Nova Scotia offers a wide field for enterprise.

SUCCESSFUL AMERICAN MINING.—The remunerative character of mining when persistently followed is now fully recognised in America—the result being that many who formerly regarded mining as dangerously speculative now willingly invest in mines, from the conviction that they yield at least a fair average interest. This change is fully justified by figures, since a careful estimate shows that the aggregate yield of the mines of the United States in 30 years has been equal to 7 per cent. per annum on a total investment of \$700,000,000. The same average result may be confidently relied on for a great many years to come. In one sense this may seem to be a small return, but it must be remembered that the gain is in actual not in fictitious value. Mining camps will continue to boom here and there (for all mining hamlets on the Continent have had, or expect to have, their boom) until every mountain and ravine and river bottom from Mexico to Alaska shall have been explored, but the main features of the industry will still be the same. Mining for the precious metals is a serious business, involving much of the sublimity and tragedy of human life. It stimulates that Christian virtue, hope and labour, that develops mankind. By its pursuit men learn patience, endurance, and fortitude, while every day of experience adds to the conviction that for all the favours she bestows Nature demands an equivalent. The New York Mining Record shows that the Leadville daily output now reaches 800 tons, and the prospects of the mines in Colorado seem to be all that can be desired. A dozen of the Comstock (Nevada) companies are paying between them over \$140,000 per week in wages, &c. New Mexico, North Carolina, and Utah are also making good progress, and from the promise of the mines there is no reason to doubt that within a short time the average profits will be raised to 10 per cent.—an amount of interest that should satisfy the most exacting.

IRISH MINES.—Continuing our journey west from Lisheremig Silver Mine we find, about two miles south of that mine a parallel zone of silver-lead lodes, which from surface indications—there being to be seen pure galena, quartz, arsenical pyrites, &c.—present a wide field for the profitable investment of capital, this district being beyond doubt highly charged with argentiferous ores and minerals. In a deep indentation of the south shore of Bantry Bay, as we pass on to the west, we find valuable veins of roofing slate, which being close to the shore may be advantageously worked, there being no land carriage or cost of moving the debris. The scenery as we pass along the cliffs to the Sheep's-head is wild and grand, and the mountain range (Meintervarra), which divides Bantry and Dunmanus Bays—being some 1200 ft. above the sea-level—the view from the top of it excels in wild grandeur anything we have seen in the United Kingdom. Tourists have no idea of the pleasure to be derived from a visit to this *ultima thule*. An intelligent miner, who has settled down in a sheltered nook formed by the indentation of the shore, on a sunny little farm, with his family he cultivates, and by fishing and never being idle he makes out a comfortable living, pointed out to us some extraordinary lodes running into the mountain range, which by means of adits or tunnels driven on their course would attain a depth of 1000 ft., and effectually drain the interior of the mines of water without the cost of machinery. We saw a great oblique lode, consisting of yellow copper ore, black oxide of copper, gossan, quartz, mundic, &c., which runs into the mountain, and in its course intersects within 100 fms. a band or belt of six or eight splendid east and west copper lodes. Hundreds of tons of mundic and copper ore were dug out of the back of the great oblique lode, and it appears plain to us that extensive valuable mines may be opened here with the certainty of success. The grant of this great mineral property, we are informed, extends over 1500 acres, and that an agreement has been made for a lease for 31 years, at a rent of 30l. a year, free of royalty. During our visit to these mineral districts, and seeing silver, copper, lead, sulphur, &c., under our feet, we could not help asking the question why men will risk and lose millions sterling in all sorts of foreign schemes when they may safely and profitably invest their capital at home.

SANITARY EXHIBITION AT SOUTH KENSINGTON.—In connection with the Parkes Museum of Hygiene an International Medical and Sanitary Exhibition, which will be of general interest, is to be held at South Kensington during the four weeks commencing July 16. At the opening ceremony, which being accessible to all holders of the 5s. season tickets will no doubt be well attended, the chair will be taken by the Right Hon. Earl Spencer, K.G., supported by Earl Granville, K.G., Mr. J. G. Dodson, Sir James Paget, Bart., F.R.S., and Mr. J. E. Ericsson, F.R.S. The Royal Albert Hall has been chosen

as the place for the ceremony, and from the utility of the exhibition it is cordially to be hoped that it will be well supported.

KÖRTING'S JET APPARATUS.

The simplicity and durability of the various jet apparatus manufactured by Messrs. Körting Brothers, of Manchester, have already been noticed in the *Mining Journal*, and their constantly extending application affords the best possible guarantee of the satisfaction which they give in use. Mr. E. Körting's patent universal injector has proved at once strong and efficient; it works with hot or cold water, and with high or low steam pressure, without requiring any pressure of steam or water. This result is obtained by combining two complete injectors; the first or lifting injector delivering the water into the second or feeding injector, and as the first regulates the water supply of the second, as required for various steam pressures, no special water adjustment is necessary. It is claimed that by this combination advantages are obtained over all other injectors; the universal injector, for example, requires no regulation; it cannot be improperly manipulated for starting; it has no moving or wearing parts; it has no overflow, and cannot lose any water when working; it works with a maximum temperature of feed-water of 155° Fahr.; its greatest height of lift (suction) is 24 ft. It will, of course, be understood that these extraordinary results are obtained only with injectors specially constructed for special requirements. All injectors are carefully tested before leaving the works, so that annoyance and disappointment are things unheard of.

The steam jet apparatus of Messrs. Körting Brothers is already extensively applied to various purposes in chemical works and other manufactories in England, as well as in America and on the Continent. This apparatus consists of a jet of high-pressure steam, applied somewhat like a Giffard's injector, through a series of conical tubes, for the purpose of moving or forcing gases and liquids in any required direction. It has been applied to force air through the gas producers in connection with Siemens' furnaces, and to the fires of ordinary steam boilers. For ventilating purposes it has been applied to workshops, mines, drying rooms, and other places. It has been somewhat extensively applied as an exhauster in gasworks to take off the pressure of gas in the retorts, and also for revivifying the oxide of iron used in purifying gas without removing it from the purifiers. Steps are now being taken to apply it to the carbonating and other furnaces of chemical works in this district. When applied to ordinary steam boilers the apparatus is arranged so as to force air through the fire below the grate. Several of these have already been fitted up in the Manchester district, and it is said have been the means of effecting a considerable reduction in the amount of fuel used. Mr. Marshall, of the firm of Messrs. B. and W. Hawthorn, has furnished the following particulars, showing the amount of fuel used before and after the application of the Körting blowers in their engineering works at St. Peter's, near Newcastle. Before the Körting apparatus was applied a Root's boiler and a Cornish boiler, consuming together in 230 hours of twenty consecutive days 78 tons 2 cwt. 2 qrs. of unscreened coal, and were used to raise steam for the requirements of the works.

With the Körting apparatus they find they can dispense with the Cornish boiler, and the same work was done in the same number of hours with 26 tons 7 cwt. 2 qrs. of a mixture of two-thirds of small coal and one-third unscreened. There is in this case a saving of 50 per cent. of fuel. At a Cornish boiler in their works at Newcastle the economy is not so marked, but it is still considerable. For doing the same amount of work for 20 consecutive days of 12 hours each there were required per day:—With natural draught 96 cwt. of unscreened coal, at 12s. 6d. per ton; with the Körting Blower 90 cwt. 2 qrs. 10 lbs. of small coal, at 7s. per ton, thus showing a saving of 28s. per day, or fully 46 per cent. The reasons why this economy of fuel can be effected with this apparatus appear to be that the intensity of combustion is very great, owing to the air being brought under pressure into contact with the fuel. The proportion of heat utilised under these circumstances is greater than it is with a slower combustion. The combustion is quite independent of chimney draught, so that the heat required for producing chimney draught can be used for raising steam, and the fuel, even if of an inferior description, is burnt completely away, so that none is thrown away with the ashes. All the manufactures of the firm are admittedly of high quality, and will entitle them to the extensive business they have secured.

SOCIETY OF CHEMICAL INDUSTRY.—A society which promises to have an important future commenced its first general meeting on Tuesday, in the hall of the Institute of Civil Engineers, Great George-street. Inaugurated as recently as April 4 last at the rooms of the Chemical Society, Burlington House, it already numbers more than 300 members, and yesterday's meeting was largely attended. Prof. Roscoe, F.R.S., the President of the Chemical Society and also of the new society, was in the chair. The aim of the society is to bring more closely together the scientific chemist and the practical manufacturer, as it is worded in the laws, "to promote the acquisition and practice of that species of knowledge which constitutes the profession of a chemical engineer." After the President's address three papers were read:—"On 'Recent Legislation on Noxious Gases,'" by Mr. E. K. Muspratt; "the Brewing of Lager-beer," by Prof. C. Graham; and "Mechanical Furnaces," by Mr. James Macfarlane. In the evening the members dined in the Pillar Hall at Cannon-street Hotel.

SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE OF MINING ENGINEERS.—At the monthly meeting at the Mining Museum, Dudley, on Monday Mr. W. Farnworth, vice-president, occupied the chair, and there were present, among others, Messrs. H. Johnson, J. Hughes, D. Rogers, Treglown, J. Davis, R. Latham, J. Field, Munro, J. Cooksey, J. H. Cooksey, jun., H. Johnson, jun., and Wardle. Mr. Herbert Caldicott, of Dudley, was elected a student. The secretary, (Mr. Alexander Smith, M.Inst.C.E.) read the new rules, compiled by the Boiler Rules Committee, for the use of proprietors and boiler attendants. The code had been drawn up after much careful and deliberate consideration. It was decided that they be discussed at the next meeting. The secretary also read the minutes of the various meetings held in connection with the formation of a Miners' Provident Society for the district. The scheme had been floated, and the rules were being registered. The report showed that a deputation had waited upon Mr. E. Fisher-Smith—Lord Dudley's chief agent—who stated that both he and the colliers were satisfied with the present arrangement, but he appreciated the efforts being made to establish a mutual insurance scheme, and should three-fourths of the mining district accept it he would willingly join it. The rules provide that thin coal men shall pay 3d. and the masters 1d. per week, the thick coal men to pay 2d. per week and the masters 2d. The proposal of Mr. Bailey to remove the home of the Institute to Mason's College, Birmingham, was discussed, and a committee was eventually formed to wait upon the representatives of the College with a view to ascertain the terms and advantages connected therewith. It was agreed that the excursion to South Wales should not take place unless 25 signed their intention to join.

EDUCATION OF MINERS IN BRAZIL.—The natural and necessary sequence of the organisation of the Mining School of Ouro Preto has now developed itself, the first number of its Transactions—*Annaes da Escola de Minas de Ouro Preto*—having just been published (Rio de Janeiro: Typographia Nacional. London: Trübner and Co., Ludgate Hill), containing a collection of memoirs and notices of the mineralogy, geology, and mining explorations in Brazil. The able and encouraging prefatory address by the Director of the School—Prof. Henrique Gorceix, of the University of France—is followed by the first part of a chemical and geological survey of the rocks of the central portion of the province of Minas Geraes, treating of the neighbourhood of Ouro Preto, and a geological survey of the topaz deposits of Minas Geraes, both by Prof. Gorceix; on the exploration of the lead mines of Ribeirão do Chumbo; and a survey of the formations from Ouro Preto to that place, by Francisco de Paula Oliveira, M.E.; on a metallurgical excursion into the centre of the province of Minas Geraes, by Joaquim Candido da Costa Sena, M.E.; an account of the analyses made in the chemical and assaying laboratories

carrying the plates pass. The peculiar triangular shape of these scrapers or conveyors admits of their passing over the pulleys without difficulty.

VENEZUELA GOLD MINES.

Some two months ago the public were invited to subscribe to a gold mine in Venezuela, the Potosi, and the attention of investors was then directed to the immense value of the gold mines in this country. Hitherto these mines had obtained but little notice from English capitalists, but when it became known that there existed in Venezuela mines whose yield had been far greater than any in Australia or California, the Potosi Company obtained the whole of their capital five times over at once. Since then attention has been drawn towards this State, and information has just been received which is likely to place Venezuela at the head of gold-producing countries. A new gold-bearing district has been discovered to the south of Bolivar, and the announcement appears to have created no small stir in the commercial world, outside even of the general mining community, for both French and English papers have considered the discovery of sufficient importance to devote a part of their valuable space to giving publicity to it. It appears that this El Dorado was discovered by a mining engineer who had many years' experience in Venezuelan gold mining, and who states that with a perfect knowledge of El Callao, that immensely rich mine at Caratal, of Potosi, Panama, and every other mine in the province, he is convinced that this newly-discovered district will prove far richer than they have ever done, though the former company are now declaring dividends of 100% per month on shares of 150%. This gentleman, having made his discovery, and having thoroughly prospected the district, went to Bolivar to make the necessary arrangements for obtaining titles to the land.

Meanwhile, the fact of his having discovered this rich property became known to the mining community, and, relying as much on the well known abilities of the discoverer even more than on the reports, party after party left the old mining district and "rushed" the new one. Without giving the absent discoverer a chance to protect his interests, these usurpers at once "jumped" the whole property. When he returned, prepared to take up the concession, he was met by an excited mob, who threatened to shoot him if he put his foot on the property. In vain did he represent that, being the discoverer, he surely had an equal right with them to participate in the evident vast riches of the district, but he was finally driven off the property, and compelled to return to Bolivar. Upon making representations of the facts to the President of the State, a company of soldiers were at once dispatched back to the property with him, and not till the would-be thieves were fully convinced that unless the engineer was allowed to take up all the lands he had discovered they would be dispersed by force of arms, would they allow the engineer to proceed to survey the land. Such an excitement has never before occurred in Venezuela, and among a mining population, accustomed as they are to the rich deposits of Callao and Cocopia, it is evident that the newly discovered field must possess unusual riches to tempt them to abandon the old mines. And there is little need of wonder when one lode is 5 or 6 feet thick, and lode after lode is being discovered as the property is opened out. An English company, the New Callao (Limited), has been formed to secure part of this valuable property. The prospectus appears in another column.

MINES REGULATION IN VICTORIA.—We have been favoured by Mr. Thomas Couchman, the Chief Inspector of Mines, with his report for 1880 to the Honourable the Minister of Mines. Although the fatal casualties for the year under review have been very slightly in excess of those of the two preceding years, the total number of persons who have received fatal and non-fatal injuries is less than any yet recorded, notwithstanding a perceptible increase in the number of miners employed. This result cannot fail to be otherwise than gratifying. The Inspectors of Mines, in their periodical reports testify that, as a rule, there has been a general and careful compliance with the provisions of the Regulation of Mines Statute in all the principal mines, which undoubtedly has operated beneficially in decreasing the number of accidents, and that the exceptions are to be found mostly among persons engaged in shallow alluvial ground, who work independently of companies; but the workings in mines of this character are of such a temporary nature, and are so generally spread over the goldfields, as to be difficult of constant supervision; and, furthermore, the persons employed are frequently so actuated by a desire to attain their objects at the least possible trouble and expense that they are often insensibly led to incur serious risks of accident which prudent men would avoid. During the 12 months 22 persons were killed in alluvial mining and 28 in quartz mining; 11 deaths occurred at surface and 38 underground; 43 of the sufferers were Europeans and 7 were Chinamen. The deaths were nearly 0.969 per thousand of the mean number of alluvial miners employed and of quartz miners 1.822 per thousand. The average death rate per thousand of both classes was 1.313, or 1 death to every 762 miners employed. The report shows that the inspection is doing much to diminish loss of life by accident, and that on the whole mining is carried on with a far smaller proportion of casualties in Victoria than in the Mother Country.

CORPORATION OF SOUTH AUSTRALIA COPPER MINES.—Mr. Vinrace Lawrance (of Lawrance and Brook), formerly secretary of the Yudanamatana Mining Company, and latterly of the English Australian Copper Company, has been appointed secretary in Adelaide to the Corporation of South Australian Copper Mines (Limited). Those interested in the Company will doubtless be pleased to hear of Mr. Lawrance's appointment.

ROTARY STONE-BORING MACHINE WITH DIFFERENTIAL-SCREW DRILL-PROPELLER.—Mr. Egid Jarolimiek, Royal Chief Superintendent of Mines and Technical Counsellor in the Royal Agricultural Ministry of Vienna, has issued a pamphlet describing a new rotary boring machine. It consists of a hollow screw, which is provided with two long grooves. In these grooves lie set bolts, so that by their revolution the screw rotates with them, but at the same time is free to travel backwards or forwards. The rotation of the screw is produced by a rapidly moving motor driven by water, steam, or compressed air. In this instance a Mayer's double-cylinder hydraulic-pressure engine is used, which sets a worm in rapid rotation (200 to 415 revolutions per minute), and which according to the results already produced works excellently. The worm gears into a worm wheel fixed to the set bolts, and thereby the screw receives a motion of about 6½ to 13½ revolutions per minute. Behind the set bolts the screw passes through a female screw, which is not fixed, but travels by a differential motion in the same direction as the screw, but with a suitably slower velocity. For this purpose the follower lies, similarly to the set bolt, in the groove of the hollow screw, whilst the driver is fixed to the female screw. By changing the outer follower for another of different speed the velocity of revolution of the female screw can be easily regulated within the necessary limits, and therewith a suitable motion per revolution is transmitted to the boring rod united with the screw and to the boring bit. Should, for instance, the female screw and the screw be given a similar velocity of revolution, the borer would rotate with them but would receive no forward motion; on the other hand, by removing the differential motion and fixing the female screw the borer must travel the full length of the groove in the screw at each revolution. The book also contains a sketch of the construction and operation of the various other kinds of rock-drills, with a comparison of their respective merits.

NOVEL RAILWAY.—Mr. Lamont, a young English engineer, resident in Naples, has just submitted to the municipality a project for an underground railway in that city. The lines, as projected, will not only connect the east and west end to the centre of the city, but will present the novelty of reaching the villages on the heights by lifts, carrying the passengers to stations above. These lifts are worked by steam, and are ingeniously contrived to preclude accidents. The lines will have an extent of 14 miles, and will be worked by compressed air. There will be fourteen stations, and the works can be finished in three years, the volcanic sandstone offering great facilities for tunnelling.

100,000 Shares will be allotted to the vendor in part payment for the estate and mines, and the remaining 200,000 are now OFFERED FOR SUBSCRIPTION.

THE PROVIDENCE GOLD MINES

(LIMITED).

Capital £300,000, in 300,000 shares of £1 each.

Payable—2s. on application, 3s. on allotment, 2s. 6d. on the 1st day of August, 2s. 6d. on the 1st day of September, 5s. on the 1st day of October, and 5s. on the 1st day of November.

The attention of investors is called to the reports, which show that this mine has been at work for the last eight years, is earning at the rate of £80,000 a year, and that by the addition of the machinery in the course of erection this return will be nearly doubled.

DIRECTORS.

W. DUNN, Esq. (Director of the Manitoba Mortgage and Investment Company), 22, St. John's Park, Blackheath.

E. C. HAINES, Esq. (Messrs. Haines, Batchelor, and Co.), 110, Cannon-street, E.C.

W. H. HOLYLAND, Esq. (Director of the London Guarantee and Accident Company (Limited), Hurstpierpoint, Sussex.

WILLIAM LEEMING, Esq. (Director of the Surrey and Hampshire Canal Corporations, Limited), Eaton House, West Derby, Liverpool.

F. MAXWELL LYTE, Esq., F.C.S., F.I.C., Cotford, Putney, S.W., Assayer to the Paris Mint.

Lieutenant-Colonel A. W. RAY, The Lodge, Brixton Oval, Surrey.

JESSE R. GRANT, Esq., New York.

AUDITORS.

Messrs. PRICE, WATERHOUSE, and CO., 44, Gresham-street, E.C.

BANKERS.

THE ALLIANCE BANK (Limited), Bartholomew-lane, London, E.C.

BROKERS.

London—Messrs. HENRY PAWLE and CO., 13, Copthall-court, E.C.

Liverpool—ALFRED WOODS, Esq.

Manchester—Messrs. POOLEY and GRAHAME.

Glasgow—Messrs. JOHN MILLER and JAMES H. FERGUSON, 71, Queen-street.

SOLICITORS.

Messrs. G. S. and H. BRANDON, 15, Essex-street, Strand, W.C.

SECRETARY—EDWARD DUNN, Esq.

OFFICES.—12, GEORGE YARD, LOMBARD STREET, E.C.

ABRIDGED PROSPECTUS.

PURCHASE OF MINES.

This company is formed to acquire two conterminous properties, known as the Providence Gold and Silver Mine, and the Providence South Extension Mine, situate about one mile west of Nevada City, California, and 12 hours railway journey from San Francisco.

The district is one of the most auriferous in the world. Contiguous mines are well known to be working to great profit, and the celebrated and enormously lucrative Idaho Mine, of Grass Valley, is in the immediate vicinity.

RESULTS OF WORKING.

The Providence Mine has been worked for some eight years past by the recent proprietors (of whom one has lately died), and who are reported to have obtained from it over \$1,000,000 worth of gold, never employing more than 20 stamps at any one time.

PERMANENCE OF MINES AND RESERVES IN SIGHT.

The reports of the engineers and experts show that the undertaking is absolutely free from speculative risk, that it is a going concern, at the present time yielding a monthly income of £5000 to £7000, so that profits will commence to accrue from the moment the company takes possession, and that the explorations are so extensive that a minimum reserve of £400,000 worth of ore, after allowing for the cost of working, is actually in sight.

COST OF MINES.

The vendor is one of the promoters of the company, and has fixed the purchase price at £240,000, payable £140,000 in cash and £100,000 in fully-paid shares. The vendor is to discharge all the preliminary and other expenses of promoting the company, and of all agencies, advertising, printing, brokerage, and all legal and other costs and charges of and incidental to the formation, registration, and establishment of the company up to the first allotment of shares, and the price has been fixed upon that footing.

REPORTS.

The directors have formed their estimate of the properties from the reports of Messrs. G. F. Williams, R. H. Stretch (of the United States Government Geological Survey), and W. E. Hildreth, mining engineers of the highest repute and experience, the originals of which can be seen at the offices of the company.

Mr. Williams elaborately surveyed the Providence Mine in February last year, and Messrs. Stretch and Hildreth made a prolonged examination and maps of the workings in the following June.

PROOF OF PROGRESSIVE DEVELOPMENT.

The latest report of Mr. Stretch is dated December 31, 1880. The dates indicate the progressive development of the Providence Mine, and the last is especially satisfactory.

The results of the subsequent working, however, have proved of a much more favourable nature than Mr. Stretch had ventured to anticipate.

ACTUAL ASSAYS.

Mr. Stretch's report concludes with 17 assays of samples of ore, comprising several wagon loads taken from every part of the mine, and made by Messrs. Hildreth and Williams, which (omitting one, which is exceptional, and gives a value of \$141.22 per ton) show a net average value of \$26.62 per ton. This is 125 per cent. better in quality (after allowing for \$4 cost of working) than the estimate made in June, and would, if borne out in practice, make the lowest estimated quantity then in sight—i.e. 202,000 tons, worth \$4,544,000, or nearly one million sterling, and without reckoning anything for value of silver. But if the amount, 342,857 tons, previously mentioned as the quantity estimated on the average thickness of vein, be taken, the value would be \$7,775,425, or £1,555,085.

RESULTS WITH NEW MACHINERY.

Having regard to the foregoing, the following estimate is made:—With an 80-stamp mill the daily output would be about 150 tons, equal to \$45,000 net monthly, if run upon the ordinary ores of the mine such as have been milled hitherto. But if one battery of five stamps be fitted up for dry crushing, so as to prepare the rich sulphuretted ores for chlorination, the amount may be raised to about \$1950 daily, or \$58,500 monthly, the daily work being 145 tons at \$10, and five tons at \$100 per ton net profit. This on a capital of £300,000 would give a return of about 46 per cent.

These special results may, as above stated, be obtained with an 80 stamp mill, of which 40 new stamps, with corresponding machinery, are now in process of erection, and were expected to be ready to work from the 1st July. These will be taken over by and at the expense of this company, and within a period of four months of the starting of this company's management it is contemplated to erect the further 40 stamps, and thenceforward for years there need be no stoppage of the various processes.

ESTIMATED INCOME.

The essence of the reports and subsequent private advices is, that a minimum net profit of \$700,000 (£140,000) a year may reasonably be calculated upon for an indefinite number of years from an 80-stamp mill, and this return may be increased in proportion to the additional milling power.

UNDEVELOPED PROPERTY.

SOUTH EXTENSION MINE.—It is believed that this mine will prove as relatively valuable as the "Providence," and owing to their proximity and the fact that the former would be drained by the operation of the latter, it is very advantageous that both should be under the same control. The Directors have, therefore, acquired this also in the same purchase. It has not yet been regularly worked, but large quantities of rich ore have been obtained from the surface outcroppings.

The directors call attention to the fact that Mr. Jesse R. Grant,

of New York (a son of General Grant), has joined the Board. The co-operation of this gentleman secures to the company local influence, support, and experience, and carries with it a voucher for the undertaking and its value. Mr. Grant has personally inspected the mines.

CONTRACT.

The only contract entered into is—An agreement dated the 27th day of June, 1881, and made between William Smith Chapman, the vendor, of the one part, and Percy Head Baily, as trustee for the company, of the other part.

Copies of the Memorandum and Articles of Association, and of the contract above described, are open for inspection at the offices of the company, and may there be seen between the hours of eleven and three on any week day up to and including the 9th day of July.

Prospectuses and Forms of Application for Shares may be had at the bankers, brokers, solicitors, or at the offices of the company.

Should no allotment be made, the amounts paid on application for shares will be returned in full.

TIN MINE TO BE DISPOSED OF ON REASONABLE TERMS.

Good district, and easily worked by water power. Seven lodes discovered. Rare opportunity.

Address, "A. B.," Post Office, Redruth, Cornwall.

A GOOD TIN MINING SETT FOR SALE, on very reasonable

terms, in a well-known district in Cornwall.

Apply for full particulars to "C. B. W.," care of MINING JOURNAL, 26, Fleet-street, London, E.C.

FOR SALE, TWENTY-FIVE LEADHILL MINING SHARES,

fully paid (Limited), at 38s. 6d. each net cash to close an account.

Address, "Alpha," care of Mr. Christie, 129, Cannon-street, London, E.C.

AMINING CAPTAIN SEEKS EMPLOYMENT AT HOME OR

ABROAD. Is thoroughly practical from youth, now forty-one. Has been Miner, Agent, and Manager of Mines in Cornwall, Devon, Wales, and Ireland. References, testimonials, or interview. Inspections undertaken.

Apply to "Engineer," 21, Hafod-terrace, Carnarvon, North Wales.

METALS.—A Gentleman having a first-class connection in

BIRMINGHAM among Consumers is DESIROUS of REPRESENTING A GOOD HOUSE ON COMMISSION. References and security.

Apply by letter, "D. E. F.," MINING JOURNAL Office, 26, Fleet-street, E.C.

A MINING ENGINEER OF EXPERIENCE IN SPAIN,

PORTUGAL, VENEZUELA (GOLD), &c., is OPEN TO AN ENGAGEMENT. Well acquainted with the Spanish language, Management of Men, Plans, Machinery, &c.

Address, "H.," 144, Leadenhall-street, London, E.C.

THE PIONEER MINING COMPANY

(LIMITED).

TENDERS REQUIRED FOR ONE HUNDRED TONS OF THE BEST STEAM COAL, to be delivered at the Nannerch, Bagillt, or Holywell Railway Stations, at the rate of 30 tons monthly, and in quantities of not less than a wagon load or 10 tons at a time.

Price to be stated nett on delivery, and payment to be made in cash monthly. Tenders to be forwarded to the undersigned on or before the 20th inst.

CHARLES C. ADLEY, Managing Director.

125 to 131, Palmerston Buildings, Old Broad-street, London, E.C.

C. T. REEVES AND CO.,

(ESTABLISHED 1872.) STOCKBROKERS,

19, WALBROOK, LONDON, E.C.

INVESTMENTS IN STOCKS AND SHARES.

Purchases and Sales of Home, Foreign, and Colonial Stocks and Shares made at the closest market prices either for cash or the fortnightly settlement.

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Advances made on Stocks, Shares, and other negotiable Securities at equitable rates of interest.

Speculative accounts opened on favourable terms.

Special Business in Gold Mining Shares.

C. T. R. and Co.'s Monthly Price List and Report on the Stock Markets sent post free on application.

HORACE J. TAYLOR, STOCK AND SHARE DEALER,

(Late of the PORT PHILLIP AND VICTORIA [LONDON] MINING COMPANIES, Limited).

39, GREAT ST. HELEN'S, LONDON, E.C.

BUSINESS TRANSACTED IN EVERY DESCRIPTION OF STOCKS AND

SHARES.

The following undertakings are recommended:—

BWLCH UNITED, WEST LISBURN, AND WHEAL COATES.

The two former are Silver-Lead Mines, in Cardiganshire, and the latter a Tin Mine, in the famed St. Agnes district, and a great rise in prices is expected.

N.B.—I am a BUYER of 1000 BWLCH UNITED shares, or any part; and shareholders would do well to communicate before selling elsewhere, for I can offer the VERY BEST OF PRICES.

BANKERS: The CENTRAL BANK OF LONDON (Limited).

MESSRS. THOMSON AND CO.,

STOCK AND SHARE DEALERS.

44, THREADENEE STREET, E.C.

BANKERS: ROYAL EXCHANGE.

Business transacted in every description of Stocks and Shares.

TREVINCE CONSOLS.—Attention is called to the report in this day's Journal. An important rise in the price of shares must take place—price 22s. 6d.

DALSTON AND CO.,

29, THREADENEE STREET, LONDON, E.C.

Have Agents throughout the United Kingdom and all parts of the World.

Intelligence obtained on Foreign Loans, Railways, Public Works, Gold, Tin, Copper Mines, &c.

HOME MINING INTELLIGENCE SUPPLIED FREE.

JOSEPH TOMS, STOCK AND SHARE DEALER,

No. 88, BISHOPSGATE STREET WITHIN, E.C.

Can SELL the following SHARES at prices affixed:—

30 East Rose, 5s. paid, 20 W. Craven Moor, £2. 5 Minera, 25%.

30 Gov. 9d. 50 Pr. of Wales, 18s. 50 French Coffee, 15s.

5 Gover Consols, off. wd. 50 East Lovell, 38s. 9d. paid, 10s.

150 Mysore Reef, 15s. pd. 50 New Trumpet, £2. 15 West Godolphin, 40s.

11s. 10 North Hendra, £4 1/2.

For an immediate and strong rise in prices, Great Holway, West Holway, New Trumpet Consols, and Roman Gravels shares should be purchased.

CAPTAIN ABSALOM FRANCIS, M.E.

GOGINAN, ABERYSTWITTH

THE CHILE GOLD MINING COMPANY.

As announced last week the issue of this company proved a great success, which is doubtless due to the great value of the property acquired, and the high character of the board of directors, elements which cannot fail to ensure the success of the undertaking. The allotment of shares was promptly made, and it is evident the directors are determined that no time shall be lost in taking over the mines and bringing them into full operation. For this purpose Mr. James Stuart Trotter (one of the directors) and staff will leave for Venezuela on the 16th inst. We expect at no distant date to receive advices from these mines that will be of great interest not only to the shareholders of the company but also to those who are interested generally in mining for the precious metal.

BEDFORD UNITED BRIDGE LODGE.—The lode in the 20, east and west, is again improving, being almost out of the influence of the capel, which caused a temporary falling off in the value of the lode; a further improvement is daily expected. Sinking the shaft will be resumed on Monday by a full party of men, and in a lode worth 250 per fathom, the value when suspended for the purpose of making preparations for driving the ends. It is contemplated to employ extra hands with a view to a more vigorous development of this valuable property.

TREVINCE CONSOLS.—The important discovery in this mine during the past week will, it is believed, with other discoveries that have been made, soon put the mine in the Dividend List after the necessary machinery is erected, and will be the means of resuscitating some mines in the Gwennap district, also the working of unwrought ground on parallel lodes that have been immensely rich.

LADY BERTHA MINE.—The very important discovery announced last week, we are informed, has further improved. The lode is from 9 to 10 ft. wide, with a value of 25 tons of arsenical mudic and 6 tons of copper ore per fathom, the money value of which is estimated at least at 50l. a fathom. The lode would appear to have been overlooked by former workers, and points to other valuable discoveries, which it is impossible to over estimate.

WEST POLBRENN.—Important intelligence has been received in driving a cross-cut north of Wheal May shaft they have cut a branch producing good stones of tin. The peculiar features of this mine are such as to call for attention.

RICHMOND.—**Rickard, June 16:** I beg to hand you the report of the mine for the past week. South drift from Lietze tunnel cross-cut has been extended 22 ft. in ground. It is somewhat harder, but still looks good. The 300 ft. north has been advanced 10 ft. in ground. The 600 south-east drift from No. 14 chamber has been drifted 9 ft. in hard ground. The 600 very-east drift from No. 14 chute has been extended 20 ft. in favourable-looking ground. The 600 ft. north from No. 14 chute has been advanced 6 ft. Ground in present and past days has been very good. The 600 east on shale contact has been drifted 17 ft. without any change. The 600 east of No. 14 has been advanced 10 ft. in favourable ground. The 700 winze has been sunk a total depth of 68 ft. Work on this has been suspended, and the men put to raise the ore in back of the level. The main shaft has been sunk 21 ft., now down 121 ft. below the 900 ft.

IN THE MATTER OF THE COMPANIES ACT, 1862, AND IN THE
MATTER OF THE ASHETON MINING COMPANY
(LIMITED).

NOTICE IS HEREBY GIVEN, that a GENERAL MEETING of the Members of the said company will be HELD at No. 6, Queen-street-place, in the City of London, on MONDAY, the 25th day of July, 1881, at Two o'clock in the afternoon, when a resolution will be submitted:—
"That the company shall be wound-up voluntarily, and that Robert Taylor, No. 6, Queen-street-place, shall be the Liquidator in such winding-up."

In the event of the above resolution being carried, the following Special Resolutions will be submitted to the meeting:—

"The proposition to transfer and sell the mines, business, property, plant, machinery, stores, and effects of this company to a new company, to be called the Asheton United Mining Company (Limited), is hereby approved, and the Memorandum and Articles of Association produced to the meeting, and signed by the Chairman, are hereby approved as the intended Memorandum and Articles of Association of such new company."

"The Liquidator may carry out such transfer or sale as aforesaid, and may receive as compensation, or part compensation, for such transfer or sale, shares or other like interests in the Asheton United Mining Company (Limited), for the purpose of distribution among the members of this company, and may enter into other arrangements whereby members of this company may in lieu of receiving cash, shares, or other such like interests as aforesaid, or in addition thereto participate in the profits or receive any other benefits from the Asheton United Mining Company (Limited)."

By order of the Directors, ROBERT TAYLOR, Secretary.
Dated this 8th July, 1881.

IN THE MATTER OF THE COMPANIES ACT, 1862, AND IN THE
MATTER OF THE WEST ASHETON MINING COMPANY
(LIMITED).

NOTICE IS HEREBY GIVEN, that a GENERAL MEETING of the Members of the said company will be HELD at No. 6, Queen-street-place, in the City of London, on MONDAY, the 25th day of July, 1881, at 2.30 o'clock in the afternoon, when a resolution will be submitted:—
"That the company shall be wound-up voluntarily, and that John Schofield, of St. Stephen's Chambers, Telegraph-street, shall be the liquidator in such winding-up."

In the event of the above resolution being carried, the following Special Resolutions will be submitted to the meeting:—

"The proposition to transfer and sell the mines, business, property, plant, machinery, stores, and effects of this company to a new company, to be called the Asheton United Mining Company (Limited), is hereby approved, and the Memorandum and Articles of Association produced to the meeting, and signed by the Chairman, are hereby approved as the intended Memorandum and Articles of Association of such new company."

"The Liquidator may carry out such transfer or sale as aforesaid, and may receive in compensation, or part compensation, for such transfer or sale, shares or other like interests in the Asheton United Mining Company (Limited), for the purpose of distribution among the members of this company, and may enter into other arrangements whereby members of this company may in lieu of receiving cash, shares, or other such like interests as aforesaid, or in addition thereto participate in the profits or receive any other benefits from the Asheton United Mining Company (Limited)."

By order of the directors, ROBERT TAYLOR, Secretary.
Dated this 8th July, 1881.

THE AUSTRALIAN MINING COMPANY
(Incorporated by Royal Charter).

Notice is hereby given, that the THIRTY-SIXTH ANNUAL GENERAL MEETING of the Shareholders of this Company will be HELD at the Guildhall Tavern, No. 32, Gresham Street, E.C., on MONDAY, the 25th instant, at One o'clock P.M. precisely, to receive the Report, Accounts, and Balance-sheet for the past year; to Elect Directors in lieu of Henry Collier and Walter John Charles Cuthill, Esquires, who retire by rotation, and offer themselves for re-election; to fix the remuneration of the Auditors for the past year; to elect Auditors for the present year.

By Order, U. P. HARRIS, Secretary.
N.B.—The Transfer-books will be closed from the 16th to the 30th instant, both days inclusive.
I, Coleman-street Buildings, Moorgate-street, E.C., July 8, 1881.

MINE "EL CALLAO,"
GUAYANA, VENEZUELA.

COUPONS OF SHARES..... 322

Gold in bars produced in the month of May, 1881, and remitted to Messrs. Baring Brothers and Co., London, 6624-69 ozs.

DIVIDENDS distributed for each coupon, \$100.

(Signed) A. J. CAGNINACCI, Vice-President.

(Signed) VICTOR J. GRILLET, Treasurer.

LAS CALDAS FREEHOLD MALACHITE COPPER MINING
COMPANY (LIMITED).

Business in these Shares at close Market Prices.

Messrs. WARD AND CO., 184, PALMERSTON BUILDINGS
OLD BROAD STREET, LONDON.

GLASGOW AND THE HIGHLANDS.

ROYAL ROUTE VIA CRINAN AND CALEDONIAN CANALS
by Royal Mail Steamer, COLUMBA or IONA, from GLASGOW daily at 7 A.M., and from GREENOCK at 9 A.M., conveying PASSENGERS for OBAN, NORTH and WEST HIGHLANDS.

Official Guide Book, 2d.; Illustrated Copies, 6d. and 1s., by post, or at Euston, St. Pancras, King's Cross Railway Bookstalls, London.
Bill, with Map and Tourist Fares, free by post, from the Owner, Mr. DAVID MACBRAYNE, 119, Hope-street, Glasgow.

ALEXANDER SMITH, M. Inst. C. E., CONSULTING
ENGINEER AND VALUER OF IRONWORKS,
MINING, RAILWAY, ENGINEERING, and other PROPERTY,
PLANT, and MACHINERY,
1, PRIORY STREET, DUDLEY.

Mr. SMITH has been retained for nearly 20 years by some of the most prominent firms, and has conducted many of the largest valuations that have taken place in the kingdom.

Valuations for Stock Taking or any other purpose upon very reasonable terms.

"THE JAMIN" PATENT ELECTRIC LIGHT
COMPAGNIE GENERALE D'ECLAIRAGE ELECTRIQUE.

Capital, 8,000,000 Francs.

Proprietors of the Gramme Patent Machine for Alternate Current

J. A. BERLY, C.E., A.S.T.E., &c.,
Engineer, and Sole Agent for Great Britain and the Colonies

16, NEW BRIDGE STREET, LONDON.

ALFRED E. J. TREGAY,

MINERAL BROKER AND GENERAL COMMISSION AGENT,
ROCHE, CORNWALL.

CHINA-CLAY. OCHRES. GROUND MINERAL COLOURS.
Correspondence solicited.

THE MINING INQUIRY OFFICE
262, GRESHAM HOUSE, E.C.

CARTER AND CO., STOCK AND SHARE DEALERS,
8, UNION COURT, OLD BROAD STREET, LONDON.

Know of two or three Mines well situated and well managed, having abundance of mineral, which they can strongly recommend to intending investors for a substantial rise, and for good dividends.

Those desirous of making a good investment will do well to write to CARTER and Co. for particulars.

MR. THOMAS THOMPSON, JUN., STOCK BROKER,
16, ST. SWITHIN'S LANE, E.C.

Mr. THOMPSON transacts business in every species of Stock Exchange and Mining Securities.

Mr. THOMPSON affords reliable information to investors, and can give when desired, a list of first-class Stocks and Shares, yielding 4 to 10 per cent. dividends upon present prices.

Mr. THOMPSON's weekly Circular may be had on application.

MESSRS. THOMPSON AND SON, STOCKBROKERS, PLYMOUTH,

have for sale the undermentioned shares, for which offers are requested for any portion:—100 West of England Peat Company; 50 Devonport and Tiverton Brewery; 50 Tin Hill Mine; 50 Portescue Stannagwyn; 75 Lomax, Old Wheel Rose, 10 per cent. div.; 25 West Pateley Bridge; 10 Roman Gravel; 75 New Penrose, 12s. 6d. paid; 50 ditto, fully paid; 50 Frongoch; and numerous others, a list of which can be had on application.

MESSRS. J. TAYLOR AND CO.,
MINING ENGINEERS AND INSPECTORS,
88, LONDON WALL, LONDON, E.C.,

Have Agents in the various Mining Districts of Great Britain, the Continent, Australia, and the United States of America.

Inspections undertaken, either personally or by our Agents, and Reports or Advice as to Working given.

CAMBORNE PARISH, CORNWALL.

MESSRS. R. McFAR AND CO., Auctioneers, Glasgow, WILL
SELL BY PUBLIC AUCTION, at No. 12, St. Vincent-place, Glasgow,
on Monday, the 18th day of July, 1881, at Two o'clock, afternoon, the

MACHINERY AND MATERIALS

belonging to the SOUTH ROSKEAR TIN AND COPPER MINING COMPANY,
with the legal or equitable interests of the company in the leases or sets on
which the mine or mines belonging to the company known as South Roskear
Mine are worked, as a going concern.

Particulars and conditions of sale may be had of NATHANIEL SPENS, C.A., 12, St. Vincent-place, Glasgow; ANDERSONS and PATTERSON, Solicitors, 137, St. Vincent-street, Glasgow; GEORGE H. BARRER, Solicitor, 34, Old Jewry, London, E.C.; and Capt. JAMES HOSKING, Roskear Villa, Camborne, Cornwall.
1st July, 1881.

In the High Court of Justice—Chancery Division.

FOSTER V. FOSTER.
DURHAM.

THE RAISBY HILL LIMESTONE QUARRIES
AND LIMESTONES.

A VERY VALUABLE AND IMPORTANT PROPERTY,
comprising about 123 acres of FREEHOLD LAND, and a LEASE extending
over about 150 acres on the GARMONDWAY MOOR ESTATE. It is
situated about five miles east of Ferry Hill, and seven miles from Durham.
The North-Eastern Railway, with which the Quarries are connected, affords a ready
outlet to the ironworks of Cleveland, Middlesbrough, and the Tyne.

The Quarries are in full work, and present from east to west an open face of a
mile in length. The above contains a large percentage of carbonate of lime, and
but little magnesia. It is well known in all respects as of the best quality for
use in the blast-furnace as a flux for the manufacture of iron, and it is also an
excellent lime for agricultural and building purposes. The present sale is on an
average 20,000 tons a month; but the output may be raised to at least 300,000
tons per annum, and it commands a market at all times which would readily
absorb double that quantity. It is now extensively used in the Middlesbrough
and Cleveland districts, and also for chemical purposes, while the direct
communication with the North-Eastern Railway facilitates the delivery of any
quantities with the utmost promptitude and regularity.

The upper bed of lime is particularly suitable for the manufacture of basic
bricks, and a licence, which will be assigned to the purchaser, has been granted
by Mr. T. Gilchrist Thomas for their manufacture, and they could be turned out
on this ground at a very small cost. The necessity for these bricks in lining the
converters under Mr. Gilchrist Thomas's patent for making steel is opening up
an advantageous source of utilisation of the upper strata of the limestone and a
very profitable trade, as the manufacture of steel must soon become the first
industry of the country. In connection with the works, and included in the
sale, is a comfortable manager's residence, cottages for quarrymen, and stabling.

The above IMPORTANT PROPERTY will be SOLD by MR. JOHN WHIT-
TAKER ELLIS, of the firm of Farebrother, Ellis, Clark, and Co., at the Station
Hotel, Newcastle-upon-Tyne, on Saturday, the 6th day of August, 1881, at Three
for Four o'clock precisely, in One Lot, pursuant to an order in the above action,
and with the approbation of the Master of the Rolls.

Particulars and conditions of sale, plans, and further information may be
obtained on application to Messrs. TRINDERS and CURTIS-HAYWARD, Solicitors,
14, St. Helen's-place, Bishopsgate-street Within, E.C.; T. W. DENBY, Esq., 8,
Frederick's-place, Old Jewry, E.C.; J. ANDERSON ROSE, Esq., 11, Salisbury-street,
Strand, W.C.; Mr. JAS. TAIT (the manager), Raisby Hill Limestone Quarries,
near Coxhoe, County Durham; at the place of sale; and of Messrs. FARE-
BROTHER, ELLIS, CLARK, and CO., 5 and 6, Lancaster-place, Strand, W.C., and
18, Old Broad-street, E.C.

Orders to view may be had on application to Messrs. TRINDERS and CURTIS-
HAYWARD; or Messrs. FAREBROTHER, ELLIS, CLARK, and CO.

GAREFIELD COLLIERY AND ESTATE,
comprising 1900 acres, more or less, of FREEHOLD COAL; 500 acres,
more or less, of FREEHOLD FIRE-CLAY; 50 acres, more or less, of LEASE-
HOLD COAL; 570 acres, more or less, of LEASEHOLD FIRE-CLAY; and
500 acres, more or less, of LAND; and the MINES OF COAL under the estate
of Ravenside, containing 235 acres, more or less, all situate in the parish of Ryton,
in the county of Durham, will be

OFFERED FOR SALE, BY PUBLIC AUCTION,

At Newcastle-upon-Tyne, on or about the FIRST WEEK IN AUGUST, 1881.

Further particulars and information will be given in future advertisements,
and can be obtained from Messrs. J. and F. ANDERSON, W.S., 48, Castle-street,
Edinburgh; Messrs. J. and G. H. GEDDES, Mining Engineers, Edinburgh; Messrs.
T. and R. ARMSTRONG, Land Agents, 14, Hawthorn-terrace, Newcastle-upon-
Tyne; WM. GREEN, Esq., Mining Engineer, Thornely House, Blaydon-upon-Tyne;
or Messrs. CLAYTON and GIBSON, Solicitors, Guildhall, Newcastle-upon-Tyne.

TO MINING CAPITALISTS.

TO BE OBTAINED, on reasonable terms, the GRANT of an
EXTENSIVE and MOST PROMISING TRACT of MINERAL GROUND,
situate in Devonshire, between the Devon Great United and the Great Wheal
Martha Mines, and in the immediate vicinity of the Devon Great Consols, the
main lode of the latter passing directly through this property. From a shaft
only 20 fms. deep quantities of arsenical mundie, copper, and tin ores have been
raised.

Full particulars of "X. Y. Z.," 37, Walbrook, E.C.

TO CAPITALISTS, PROMOTERS, &c.

TO BE DISPOSED OF, ON LIBERAL TERMS, the LEASE
of a FIRST-CLASS ROOFING and SLAB SLATE QUARRY, in the De-
laube district, now out of work. Facilities for shipment direct from the Pit.
For particulars to treat, apply to Mr. THOS. CRAPP, St. Columb, Cornwall.

TO CAPITALISTS AND OTHERS.

TO BE LET, WITH IMMEDIATE POSSESSION, direct from
the landlord, a VERY VALUABLE

ANTHRACITE COLLIERY.

Situate in GLAMORGANSHIRE, within easy access by canal of the Ports of
Neath and Swansea, and within half a mile of the Great Western Railway, with
which a communication can easily be made.

The Colliery is in working order, and an extensive tract of the well-known
Nine-feet Seam has recently been opened upon.

For further particulars, apply to T. B. ALLISON, Aberpergwm Estate Offices,
near Neath, Glamorgan.

RAILWAY WAGONS.

FOR SALE, FIFTY SECOND-HAND 8-ton WAGONS,
built to a first-class specification, and now in thorough repair.

For particulars as to price, and to inspect the wagons, address "E. M.,"
MINING JOURNAL Office, 26, Fleet-street, London, E.C.

FOR SALE, ROOTS' PATENT BOILER, 60 H.P. Safe and
sure, in good condition. Only wants erecting.

Apply, ELKINGTON and Co., Newhall-street, Birmingham.

ON SALE, COMPRESSING, PUMPING, OR WINDING
ENGINES.—SECONDHAND PAIR of 26 in. HORIZONTAL ENGINES;
SECONDHAND PAIR DITTO, 43 in. diameter, sold together or separate.

EDWARD RATCLIFFE, HAWARDEN.

ON SALE, SECONDHAND WINDING ENGINES IN PAIRS;
cylinders from 10 to 26 inches diameter.

EDWARD RATCLIFFE, HAWARDEN.

ON SALE, THREE GALLOWAY BOILERS, 30 ft. by 7 ft.,
with all recent improvements. FIFTY other BOILERS, various sizes, ready
for delivery. Price List on application.

EDWARD RATCLIFFE, HAWARDEN, NEAR CHESTER.

TO CAPITALISTS, &c.

FOR SALE, A VALUABLE LIGNITE BRIQUETTE FACTORY,
with the attendant LIGNITE COLLIERY, and all necessary APPARATUS
and MACHINERY for the MANUFACTURE of the BEST LIGNITE BRIQUETTE
only. The vein of coal is estimated as sufficient to last for centuries without
additional supply.

Situate in immediate proximity to a railway station in Bohemia, it stands
upon the German frontier, and has no competition in its trade.

For particulars, apply to P. BACKE, Darmstadt in Hessa.

FOR SALE OR HIRE, ONE HUNDRED TO TWO HUNDRED
OR MORE 3½ and 4-yard END TIP WAGONS; also several 8 in.
and 13 in. cylinder TANK LOCOMOTIVES, and other CONTRACTORS' PLANT,
equal to new.

Apply, JOHN DICKSON, Jun., or A. C. BETTS, New North Works, Bootle, near
Liverpool.

SPARE MACHINERY AND MATERIALS FOR SALE, BY
PRIVATE CONTRACT, at GOOLE PELLAS MINES, St. Ives, Cornwall.

ONE 40 in. PUMPING ENGINE, new cylinder, spring ring, &c., with or
without BOILERS.

ONE 30 in. STAMPING ENGINE, wrought-iron shaft, TWO FLY-WHEELS.

ONE 24 in. WINDING ENGINE, complete; and a 22 in. ditto.

Sundry BOILERS, in first-class condition, from 11 tons down to 7 tons.

Large balance and angle bolts, nearly new; new and lofty shaft tackle; dry
tubes; 200 fms. of 3½ mild steel wire rope—new from maker, never used; a large
quantity of pitwork, from 10 in. down to 6 in.; new plunger poles, from 10 in.
down to 7 in.; strapping plates, various sizes; a large quantity 2 ft. shieves;
and other materials in general use in mines.

For particulars and prices, apply to Capt. BUGELHOLE, West Providence Mines,
St. Ives, Cornwall.—Dated May 2, 1881.

FOR SALE, a 30 H.P. PORTABLE STEAM ENGINE; with
link-motion reversing gear, has drum and gearing complete for winding
and pumping.

A 14 H.P. PORTABLE WINDING AND PUMPING ENGINE.

Also a 6 H.P. PORTABLE HOISTING ENGINE.

Apply to—
BARROWS and STEWART, ENGINEERS, BANBURY.

WANTED, an UNDER-MANAGERSHIP in a FOREIGN
LEAD MINE. The Advertiser is experienced in Surveying, Levelling,
and other Branches of Engineering and Mining Operations. References can be
given.
Address, stating salary, "E. J.," MINING JOURNAL Office, 26, Fleet-street, E.C.

FOR SALE, THIRTY WEST HOLWAYS, at TWENTY-FOUR
SHILLINGS PER SHARE.
Address, "S. J.," MINING JOURNAL Office, 26, Fleet-street, E.C.

PAIR OF PUMPING ENGINES, coupled, 4 in. centres, cylinders
13 in., stroke 24 in. Second-hand, in good condition.
Apply to JOHN CROWLEY and Co., Meadow Hall, near Sheffield.

ROBEY ENGINE WANTED.

WANTED, a ROBEY ENGINE of 16 to 20-horse power, in
thorough good order, to be delivered at Tavistock Railway Station, or
at a Wharf on the River Tamar. This engine is required for the purpose of
DRIVING ROCK DRILLS.
Apply to Mr. PETER WATSON, 13, Austin Friars, Old Broad-street, London, E.C.

WANTED, a MINE AGENT, CLERK, ONE MINING
CARPENTER, ONE SMITH, and ONE PITMAN to proceed to NORTH
CAROLINA.

Reply by letter to "Secretary, Gold Hill Mines (Limited)," 36 to 39, Palmerston
Buildings, London, E.C., stating previous employment, wages required, and
giving full particulars as to capability, &c.
Copies only of testimonials to be forwarded.

WANTED, ONE or TWO PARTNERS, with £15,000, to TAKE
the PLACE of TWO RETIRING in a SCOTCH CANNEL or GAS COAL
and IRONSTONE FIELD, extending to 647 acres. The minerals are of superior
quality, having the blackband ironstone and cannel coals of the Leamnahgaw
section.

The colliery is new, and well equipped with the best machinery. Every en-
couragement will be given for a thorough investigation of the works.
For further particulars apply by letter to GEORGE PRATT, 2, Elmbank-street,
Glasgow.

TO MINING ENGINEERS.

AN AMERICAN MINING ENGINEER, enjoying a large practice
in California, Nevada, Idaho, Utah, Colorado, Arizona, Mexico, and New
Mexico, DESIRES TO EFFECT AN ARRANGEMENT with an English Mining
Engineer, having an office in London, to TAKE ORDERS for the EXAMINA-
TION OF MINES in the above-named States and Territories.
Address, ALEX. DEL MAR, 114, Gresham House, London, E.C.

TO MINING COMPANIES.

AN ENGINEER, who has had 20 years' experience in large Mines
at home and abroad, will be OPEN SHORTLY to a RE-ENGAGEMENT.
High testimonials for Machinery and general Mining ability. French and
German. Age 38.
Address, "Engineer," Boleingy, Truro.

PROMISING MINES.—WANTED AN OFFER FOR—
150 TREVINCEN CONSOLS.
100 EAST DEVON CONSOLS.
200 NORTH HERODSFOT.

A sale of the above Shares being imperative, no reasonable offer will be refused
regardless of quoted prices. Two days required for reply, as the seller resides
distant from London.

Apply to "A. B. C.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

STOCKS AND SHARES.

FOREIGN BONDS, RAILWAYS, TRAMWAYS, GAS, INSURANCE
IRON, COAL, and MISCELLANEOUS SHARES.

Prices, with reliable information, forwarded on application to—
MESSRS. H. B. LEWIS AND CO.,
BARTHOLOMEW HOUSE,
LONDON, E.C.

SPECIAL INFORMATION in the SELECTION OF MINING SECURITIES
The "MONTHLY INVESTMENT LIST" and the "WEEKLY PRICE LIST,"
may be had on application.

MR. CHARLES WILLIAMS, MINING ENGINEER AND
SURVEYOR, DOLE HOUSE, TALLISIN, R.S.O., is at all times in
POSITION TO FURNISH CAPITALISTS WITH RELIABLE INFORMATION in
the SELECTION OF MINING PROPERTIES in CARDIGANSHIRE and NORTH
WALES. Investors will do well to consult the above before laying out money
in the districts named.

MR. W. TREGELLAS, 40, BISHOPSGATE STREET
WITHIN, E.C.

Deals in all descriptions of STOCKS and SHARES at close market prices, and
is always in a position to do business in SANTA BARBARA, PITANGUI,
and BRAZILIAN GOLD MINES.

CAPT. JOHN PHILLIPS, of the Oola Hills Lead Mines, Co.
Limerick, Ireland, has SPECIAL MINING BUSINESS in CORNWALL
and DEVONSHIRE for the next three weeks. He begs to offer his services to
Private Gentlemen or Mining Companies to INSPECT and REPORT on any
MINE, MINES, or MINERAL PROPERTIES, and he will faithfully, honestly,
and fearlessly execute any orders that may be entrusted with him.

All orders to be addressed to JOHN PHILLIPS, Post Office, St. Newlyn East, via
Grampound Road, Cornwall; or to Mining Offices, No. 8, Frankfort-street, Ply-
mouth, Devon.

Satisfactory references can be given, if required.

MR. P. S. HAMILTON (late Chief Commissioner of Mines for
the Province of Nova Scotia), PRACTICAL GEOLOGIST, MINING
AGENT, and MINING ENGINEER, HALIFAX, NOVA SCOTIA.

PURCHASES and SALES of MINING PROPERTY effected, with careful re-
gard to the interests of clients.

68, HUNTER STREET, SYDNEY.

FRANCIS AND RICHARDS, CIVIL AND MINING
ENGINEERS AND SURVEYORS.

Colonial Mining Properties, Metals or Minerals examined or reported on.
Terms moderate.

References in England: Messrs. JOSEPH MATTHEWS and Co., Engineers and
Ironfounders, Tavistock, Devon.

THE ANGLO-AFRICAN DIAMOND
MINING COMPANY

(LIMITED).

Notice is hereby given, that the LIST OF APPLICATION FOR
SHARES in the above company will be CLOSED for both TOWNS
and COUNTRY THIS DAY (Saturday), July 9th inst.

By Order, WALTER C. TAYLOR, Secretary.

5th July, 1881.

INTERNATIONAL MEDICAL AND
SANITARY EXHIBITION.

OPENING CEREMONY, ROYAL ALBERT HALL,
SATURDAY, JULY 16TH.

The President, the Right Hon. Earl SPENCER, K.G., will take the
chair at 4.30 P.M., supported by the Right Hon. Earl Granville, K.G.,
the Right Hon. G. Dodson, M.P., Sir James Paget, Bart., F.R.S., and
John Eric Erichsen, Esq., F.R.S.

Admission: Opening Day, by Season Ticket, Five Shillings.
After Opening Day, One Shilling.

From Ten till Seven.

MARK H. JUDGE, Secretary.

All communications to be addressed, South Kensington, London, W.

Just published,

EXAMPLES OF COAL MINING PLANT.

By J. POVEY-HARPER, M.E.,
All Saints, Derby.

Comprising Working Draw

NOBEL'S DYNAMITE



Manufactured and sold by

NOBEL'S EXPLOSIVES COMPANY (LIMITED), 149, West George Street, Glasgow.

AGENTS EXPORT: J and G. THORNE, 85, GRACECHURCH STREET, LONDON, E.C.

FACTORIES--ARDEER WORKS, STEVENSTON, Ayrshire.

WESTQUARTER WORKS, POLMONT STATION, STIRLINGSHIRE.

THE COTTON POWDER COMPANY (LIMITED)

RECOMMEND TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, THEIR

TONITE, OR COTTON POWDER,

AS BEING THE SAFEST, CHEAPEST, AND STRONGEST OF ALL EXPLOSIVES.

TONITE is the most efficient and economical blasting agent ever invented, and is largely in demand. It does not contain any Nitro-glycerine, and is, therefore, exempt from the dangers of exudation, or of freezing and its attendant process of thawing.

The Company also manufacture PATENT DETONATORS of a quality much superior to the foreign article. The trade supplied on favourable terms.

OFFICES:

23, QUEEN ANNE'S GATE, LONDON, S.W.

WORKS: FAVERSHAM, KENT.

Agents DINEEN, SON, and Co., Leeds; DAVID BURNS, Halthwhistle; R. J. CUNNACK, Helston, Cornwall; J. and W. SMITH,

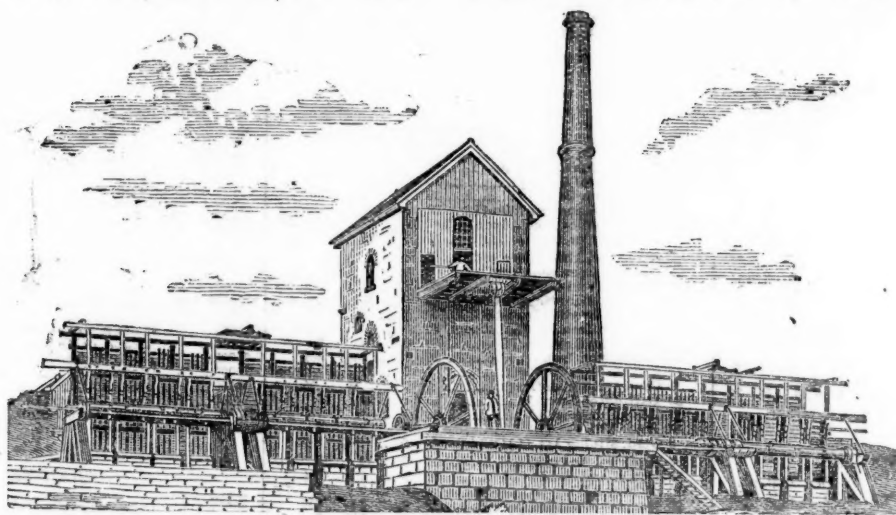
Chapel-en-le-Frith; W. VEITCH, Jedburgh, N.B.; W. HARRISON, Barrow-in-Furness.

THE TUCKINGMILL FOUNDRY COMPANY,

(TUCKINGMILL FOUNDRY AND ROSEWORTHY HAMMER MILLS),

CAMBORNE, CORNWALL,

Engineers, Iron and Brass Founders, &c.



REGISTERED TRADE MARK.

MANUFACTURERS OF EVERY DESCRIPTION OF

REGISTERED TRADE MARK.

PUMPING, WINDING, AND STAMPING ENGINES
ALL KINDS OF
MINING MACHINERY, SHOVELS, AND MINER'S TOOLS;
ALSO OF
BLAKE'S STONE BREAKERS.

ESTIMATES GIVEN UPON INDENTS AND SPECIFICATIONS.

ILLUSTRATED CATALOGUES POST FREE ON APPLICATION

LONDON OFFICE: 85, GRACECHURCH STREET, E.C.

GOLD MEDAL AWARDED, PARIS EXHIBITION 1878.

THOMAS TURTON AND SONS,

MANUFACTURERS OF

MINING STEEL of every description.

CAST STEEL FOR TOOLS. CHISEL. SHEAR. BLISTER. & SPRING STEEL

MINING TOOLS & FILES of superior quality.

EDGE TOOLS, HAMMERS, PICKS, and all kinds of TOOLS for RAILWAYS, ENGINEERS, CONTRACTORS, and PLATELAYERS. LOCOMOTIVE ENGINE, RAILWAY CARRIAGE and WAGON SPRINGS and BUFFERS.

SHEAF WORKS & SPRING WORKS, SHEFFIELD.

LONDON OFFICES--90, CANNON STREET, E.C.

PARIS DEPOT--12, RUE DES ARCHIVES.

BOSTON MASS., U.S.--40, KILBY STREET.

For Excellence
and Practical Success
of Engines.



Represented by
Model exhibited by
this Firm.

HARVEY AND CO.,
ENGINEERS AND GENERAL MERCHANTS
HAYLE, CORNWALL

LONDON OFFICE--186, GRESHAM HOUSE, E.C.

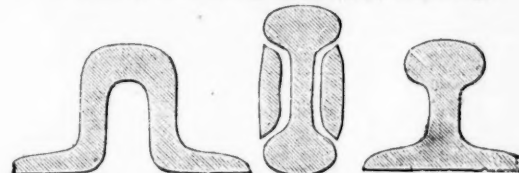
MANUFACTURERS OF
PUMPING and other LAND ENGINES and MARINE STEAM ENGINE
of the largest and most approved kinds in use, SUGAR MACHINERY
MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL
SHIPBUILDERS IN WOOD AND IRON.

MANUFACTURERS OF
HUSBAND'S PATENT PNEUMATIC STAMPS

SECOND-HAND MINING MACHINERY FOR SALE,
In Good Condition, at Moderate Prices--viz.

PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES,
STEAM CAPSTANS; ORE CRUSHERS; BOILERS and PITWORK of
various sizes and descriptions; and all kinds of MATERIALS required for
MINING PURPOSES.

JOHN BEATSON & SON,
40h, St. Mary's Gate, Derby.



IRON AND STEEL RAILS, of all sections, from 10 to 86 lbs. per
yard, new perfect, new slightly defective, or second-hand, with Fish plate,
Bolts and Nuts, Chairs, Spikes, and Points and Crossings to match, when re-
quired.

STEEL AND IRON WIRE ROPES, LOCOMOTIVE ENGINES, &c., &c.
BARS, PLATES, SHEETS, &c.
STEEL OF ALL KINDS. FISH IRON OF ALL KINDS
Delivered at all Railway Stations and Ports in Great Britain.

DUNN'S

IMPROVED ROCK DRILL.

This DRILL is GREAT
STRENGTH and SIMPLICITY
SECOND TO NONE IN THE
KINGDOM.

We are prepared to SUPPLY
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Supplement, April 1, 1876, containing a report on property of the Maxwell Land
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Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
3939 Blue Hills, t, c, St. Agnes	4 6	6	3 1/2	2 1/2	0 4	0 2
0000 Caron, t, Cardigan	2 0	0	1 2	0 4	0 0	0 2
6000 Carn Brea, t, c, Illogan	9 7	11	24 1/2	24 1/2	51 11	8 0
10240 Devon Gt. Consols, c, a, Tavistock	1 0	0	10	10	11 7	0 0
4296 Dolcoath, t, c, Illogan	10 14	10	56 1/2	56 1/2	121 11	3 0
12500 Frongoch, t, c, Cardigan (10000 sh. pd.)	2 0	0	4 1/2	3 1/2	23 17	1 0
40000 Glas. Car., c, (30000 sh. pd., 10000 15s. pd.)	2 0	0	4 1/2	3 1/2	0 13	10 0
8500 Gorseid and Merilyn Con., t, Flint	2 10	0	3	2 1/2	0 5	0 0
13000 Great Laxey, t, c, Illogan	4 0	0	19	18 1/2	27 0	0 0
6400 Green Hurl, t, c, Durham	0 6	0	7 1/2	7 1/2	2 18	0 0
20000 Grogwinion, t, Cardigan	2 0	0	3	2 1/2	0 16	4 0
10240 Gungliff (Clitters), t, c, j	2 2	0	3 1/2	3 1/2	0 15	9 0
28000 Isle of Man, t, c, Isle of Man	25 0	0	—	—	63 5	0 0
4300 Leadhills, t, c, Lancashire	18 15	0	—	—	60 10	0 0
4300 Lisburne, t, c, Cardigan	2 0	0	5	4 1/2	1 6	0 0
10000 McLennan, t, c, Hayle	5 0	0	9	8 1/2	69 0	8 0
9000 Minera Mining Co., t, Wrexham	7 0	0	2 1/2	2 1/2	24 0	0 0
20000 Mining Co. of Ireland, t, c, t	5 0	0	12	11 1/2	0 10	0 0
8000 Mona, t, c, Anglesea	2 10	0	6	5 1/2	3 12	6 0
11829 North Hendre, t, Wales	1 5	0	3 1/2	3 1/2	0 8	6 0
3146 Ditto	13 6	4	3 1/2	3 1/2	4 16	0 3
2000 North Levant, t, c, St. Just	3 17	6	4	3 1/2	3 17	0 0
5000 Penhalls, t, St. Agnes	5 0	0	5	4 1/2	40 15	6 0
6000 Pennant, t, c, North Wales	1 0	0	4 1/2	4 1/2	17 0	0 0
12000 Phoenix United, t, c, Link	1 0	0	4 1/2	4 1/2	0 18	6 0
18000 Fr. Patrick, t, c, (12000 sh. pd., 10000 10s. pd.)	2 0	0	2	1 2	0 4	0 0
10000 Red Rock, t, c, Cardigan	7 10	0	12 1/2	12 1/2	8 11	0 0
12000 Roman Gravel, t, Salop	10 0	0	—	—	0 5	0 0
4000 Rhydalun, t, c, Wales	1 5	0	60	55 60	749 0	0 0
512 South Cardigan, t, c, St. Cleer	6 5	6	9 1/2	9 1/2	8 7	0 0
6123 South Cardigan, t, c, St. Cleer	1 16	0	13 1/2	13 1/2	4 0	0 0
9000 South Cardigan, t, c, St. Cleer	7 12	4	15 1/2	15 1/2	0 16	3 0
4500 South Cardigan, t, c, St. Cleer	11 10	0	17 1/2	17 1/2	50 13	6 0
10000 Tincroft, t, c, Pool, Illogan	4 5	0	10 1/2	9 1/2	25 5	6 0
15000 Van, t, c, Llanidloes	20 12	6	3 1/2	3 1/2	55 10	0 0
3000 West Chiverton, t, c, Penzance	95 10	0	16	15 1/2	33 0	0 0
512 West Tolgus, t, c, Redruth	27 0	0	21	20 22	223 0	0 0
1200 West Wheel Seton, c, Camborne	7 0	4	15 1/2	15 1/2	27 7	0 0
6000 West Basset, c, Illogan	2 4	4	3 1/2	3 1/2	0 12	9 0
12000 Wheel Crebor, c, Tavistock	18 0	0	8 1/2	8 1/2	42 18	0 0
1024 Wheel Eliza Consols, t, St. Austell	5 4	6	2 1/2	2 1/2	12 18	6 0
4296 Wheel Grenville, t, c, Camborne	7 11	0	18	18 1/2	7 18	6 0
4296 Wheel Killy, t, c, St. Agnes						
3000 Wheel Pevor, t, Redruth						

FOREIGN DIVIDEND MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamos, t, Spain	2 0	0	1 1/2	1 1/2	2 2	9 0
30000 Almaden, t, Spain	7 7	6	1 1/2	1 1/2	1 5	6 0
20000 Australian, c, South Australia	4 0	0	2	1 1/2	0 18	0 0
15000 B. de C. de C., c, California	7 0	0	44	42 44	42 7	6 0
20000 Cape Copper Mining, t, South Africa	10 0	0	—	—	1 1	0 0
30000 Cesena Sulph. Co., Romagna, Italy	3 8	0	3 1/2	3 1/2	1 13	9 0
50000 Copiapo, c, Chile (4s. shares)	2 10	0	1 1/2	1 1/2	2 18	9 0
70000 English & Australian, t, c, Aust.	2 0	0	4 1/2	4 1/2	7 17	2 0
20000 Fortuna, t, Spain	2 0	0	4 1/2	4 1/2	0 14	2 0
60000 Frontino & Bolivia, c, New Gran.	2 0	0	1 1/2	1 1/2	0 9	6 0
200000 La Plata, t, c, Leadville	2 0	0	1 1/2	1 1/2	13 14	10 0
15000 Llaneros, t, Spain	5 0	0	5 1/2	5 1/2	0 2	6 0
60000 New Quebrada, c, Venezuela	100 0	0	101	98 101	6	per cent.
1000 Ditto, Debutentes	4 0	0	—	—	0 2	6 0
3000 Oregon, c, Oregon, U.S. (pref. sh.)	4 0	0	6	5 1/2	0 13	3 0
50000 Panulillo, c, Chile	0 10	0	—	—	0 1	0 0
25000 Pitagui, t, Brazil (in 6000 £1 pd.)	20 0	0	15	12 14	28 17	6 0
10000 Pontgibaud, t, France	1 0	0	1 1/2	1 1/2	14 2	0 0
100000 Port Phillip, c, Clunes (42 shares)	1 0	0	1 1/2	1 1/2	12 1	0 0
54000 Richmond Consol., t, Nevada	10 0	0	101	100 102	5	per cent.
15000 Rio Tinto, c, Sp. Coup. Bd., Huéla	10 0	0	2	1 1/2	0 11	9 0
25000 Ditto, shares	1 0	0	13 1/2	13 1/2	15	p. cent.
40000 Santa Barbara, t, Brazil	0 10	0	—	—	0 2	0 0
100000 Scottish Australian Mining Co., t	0 10	0	—	—	0 2	0 0
80000 Ditto, New	0 10	0	—	—	0 2	0 0
50000 Sentein, t, c, Arrière, France	1 0	0	1	3 1/2	2 1	0 0
25000 Sierra Buttes, c, California	2 0	0	1 1/2	1 1/2	2 1	0 0
40000 Ditto, Plumas Eureka	2 0	0	1 1/2	1 1/2	2 10	0 0
230000 St. John del Rey (45 stock and multiples dealt in)	10 0	0	41	41 1/2	6 10	0 0
25000 Toluca, t, c, Colombia	5 0	0	—	—	1 16	6 0
25000 Victoria (London), c, Australia	1 0	0	—	—	0 13	10 0
15000 Western Andes, c, Colombia	5 0	0	—	—	2 18	0 0
2100 W. Prussian (5500 pref. sh. £10 pd.)	10 0	0	10 1/2	10 1/2	4	J. 0

Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Paid.	Last wk.	Clos. pr.
30000 Alston United, t, Cumberland	5 0	0	1 1/2
12000 Asherton, t, c, Carnarvonshire	1 0	0	1 1/2
10000 Atlantic, t, c, (res. shares 28,000)	1 0	0	1 1/2
36000 Basset & Buller Cons., t, c, Illogan	1 0	0	—
11583 Bedford Unit., t, c, Tavis. (£1 lib.)	0 8	0	2 1/2
6000 Blaen Oaelan, t, Cardigan	3 0	0	—
30000 Blackburnbanks & Gildersdale, t	0 5	0	3 1/2
30000 Bodidris, t, c, Denbighshire	1 0	0	—
10000 British, t, c, Wrexham	2 0	0	—
20000 British United, t, c, Cardigan	0 17	6	3 1/2
25000 Callington Consols, t	2 0	0	2 1/2
50000 Cambrian, t, c, Cardigan	2 0	0	—
6000 Carn Camborne, t, c, Camborne	0 8	0	3 1/2
20000 Carnarvon, t, c, Carnarvonshire	1 0	0	1 1/2
6000 Cathedral Cons., t, c, Gwynedd	0 5	0	1 1/2
20000 Central Foxdale, t, c, of Man (2s. sh.)	1 17	6	—
25000 Coad-y-Pedw & Pant-y-Buarth, t, Mold	1 0	0	1 1/2
2450 Cook's Kitchen, t, Illogan	30 4	9	16 1/2
15500 Court Grange United, t, c	0 12	0	3 1/2
14000 Crosswood Mining Lands, t	1 0	0	1 1/2
1536 D'Essey Mountain, t, c, Llanrwst	20 0	0	50 2 3
20000 Denbighshire Consolidated, t	3 0	0	3 1/2
12000 Derwent, t, c, Durham	4 0	0	1 1/2
100000 Devon, t, c, Tavis. (15162 iss.)	1 0	0	1 1/2
60000 Devon Friendship, t, c, Tavistock	1 0	0	1 1/2
12000 Devon Great United (2s. shares)	1 0	0	1 1/2
20000 Devonshire, t, c, Lydford	1 0	0	1 1/2
50000 Drakeville, t, c, Calstock	1 0	0	1 1/2
10000 Dubby Syke, t, c, Durham	1 0	0	1 1/2
12000 East Blue Hills, t, c, St. Agnes	0 5	0	3 1/2
6000 East Botallack, t, c, St. Just	0 8	0	1 1/2
6144 East Caradon, t, c, St. Cleer	3 14	6	3 1/2
4000 East Chiverton, t, c, Penzance	9 19	9	2 1/2
30000 E. Craven Moor, t, c, Tavistock	1 0	0	1 1/2
12000 East Crebor, c, Tavistock	0 10	0	3 1/2
15000 East Devon Cons., t, c, Buckfastleigh	2 0	0	3 1/2
30000 East Herodfoot, t, c, Liskeard	1 0	0	1 1/2
20000 East Long Rake, t, c, Wales	1 0	0	1 1/2
21000 East Roman Gravel, t, c, Salop	0 15	0	1 1/2
18000 East Van, t, c, Llanidloes	5 0	0	1 1/2
4096 East Wheel Buller, t, c, Gwynedd	0 10	0	3 1/2
2096 East Wheel Lovell, t, c, Helston	14 3	6	2 1/2
10000 East Wheel Rose, t, c, Newlyn East	1 0	0	1 1/2
10000 Fortescue (Stannary), t, c, var	1 0	0	2 1/2
12000 Gawton, t, c, Tavistock (2s. shares)	1 14	0	1 1/2
14000 Glenroy, t, c, Isle of Man	1 0	0	1 1/2
30000 Gobbett, t, c, Dartmoor	1 0	0	1 1/2
10000 Goddards, t, c, Carnarvon	1 0	0	1 1/2
25000 Goodere, t, c, St. Cleer	1 0	0	1 1/2
20000 Griffin, t, c, Carnarvon	1 0	0	—
20000 Great Dylliffe (10000 sh. issued)	1 0	0	1 1/2
12000 Great Holway, t, c, Flintshire	5 0	0	5 1/2
100000 Great Polgoth United, t	1 0	0	1 1/2
6000 Great West Chiverton, t, c, St. Agnes	0 5	0	3 1/2
10000 Gwynedd, t, c, Flintshire	4 0	0	—
70000 Gwydyr Amal, t, c, Carnarvon	1 0	0	1 1/2
6400 Harwood, t, c, Durham	1 0	0	1 1/2
12000 Herodfoot, t, c, near Liskeard	0 12	9	3 1/2
18000 Hington Down, t, c, Calstock	0 12	0	1 1/2
20000 Kirkcubbin, t, c, (20000 unissued)	1 0	0	1 1/2
6000 Killfret, t, c, Chacewater	4 0	0	3 1/2
25000 Kit Hill Gt. Cons., t, c, var, (2s. sh.)	0 15	0	1 1/2
15000 Lady Ann, t, c, Llanarmon	1 0	0	—
30000 Lady Ashburton, t, c, Callington	1 0	0	1 1/2
10000 Lady Bertha, t, c, Tavistock	0 17	0	—
25000 Levant, t, c, St. Just	11 10	0	1 1/2
15000 Llandegla, t, c, Wales	1 0	0	1 1/2
10000 Lomax, t, c, Helston	1 0	0	1 1/2
5120 Lovell, t, c, Wendron	0 16	0	1 1/2
9000 Marke Valley, c, Linkinhorne	5 19	6	1 1/2
6000 Medlyn Moor, t, c, Wendron	3 15	10	—
28000 Mid-Devon, t, c, (17000, 3s. 4d. pd.)	0 6	8	—
15000 Monkton, t, c, St. Agnes	2 0	0	2 1/2
10000 Mynydd Gwddu, t, c, Cardigan	4 0	0	4 3 1/2
25000 Moray Firth (18000 issued)	2 0	0	—
12000 Morfa Du, t, c, g, Anglessea	1 0	0	3 1/2
6144 Mount Carbis, t, c, Redruth	1 0	0	3 1/2
2400 New Cook's Kitchen, t, c, Illogan	7 14	0	6 1/2
8000 New Dolcoath, t, c, Camborne	3 0	0	—
10000 New Holmbush, t, c, Callington	2 0	0	—
8000 New Killy, t, c, St. Agnes	0 8	0	1 1/2
12000 New Penrose, t, c, Helston (1s. sh.)	0 10	0	1 1/2
3500 New Tincroft, t, c, Lelant	6 0	0	3 1/2
2000 New Trumpet, t, c, Wendron	0 10	0	3 1/2
12000 New West Caradon, c, Liskeard	0 1 9	1	3 1/2
3000 New Wheel Pevor, t, c, Redruth	0 10	0	2 1/2
35000 New Wye Valley, t, c, Montgomery	1 0	0	1 1/2

NON-DIVIDEND MINES—continued.

Shares.	Paid.	Last wk.	Clos. pr.
20000 North Alfred, c, Phillack	0 10	0	1 1/2
5328 North Busy, t, c, Blackwater	0 10	0	1 1/2
10000 N. D'Essey Mount, t, c, Carnarv.	1 0	0	1 1/2
12000 North Herodfoot, t, c, Liskeard	0 6	0	3 1/2
50000 North Molton, t, c, m, t, Devon	1 0	0	—
6000 North Penstruthal, t, c, Gwynedd	1 8	6	2 1/2
2936 North Trekerby, c, St. Agnes	8 17	10	—
8000 Northern, t, c, Durham	1 0	0	1 1/2
80000 Old Tor, t, c, a, Calstock	1 0	0	1 1/2
80000 Old Shepherds, t, c, Cornwall	0 5	0	3 1/2
12000 Pandora, t, c, Carnarvon	2 0	0	—
11612 Pant-y-Mwyn, t, c, Mold	2 0	0	—
45000 Parys Corporation, t, c, Anglesea	1 0	0	1 1/2
7500 Pateley Bridge, t, c, Yorkshire	1 0	0	—
6000 Pedn-ar-drea, t, c, Redruth	1 17	0	4 1/2
12000 Pelyn Wood, c, Lanivry	0 5	0	3 1/2
6000 Pendarves United, c, Camborne	8 0	0	2 1/2
30000 Penhale and Barton, t, c, St. Columb	1 0	0	1 1/2
12000 Pen-y-Oreid, t, c, Flintshire	1 0	0	1 1/2
15000 Perran Consols, t, c	1 0	0	1 1/2
10000 Pioneer, t, c, Wales	1 0	0	—
10000 Polrose, t, c, Cornwall	0 12	0	10 0
10000 Port Nigel, t, c, Carnarvonshire	2 0	0	2 1/2
6000 Prince Royal, t, c, s, St. Agnes	1 0	0	1 1/2
12000 Prince of Wales, t, c, Calstock	0 10	0	1 1/2
30000 Silver Hill, t, c, Cornwall	1 0	0	1 1/2
40000 Sortridge, t, c, Hollarbridge	1 0	0	1 1/2
50000 So. Cambrian, t, c, Cardigan	1 0	0	1 1/2
30000 South of Eresby Mountain, t, c	1 0	0	1 1/2
35000 So. Devon Unit., t, c, Buckfastleigh	1 0	0	1 1/2
6000 South Penstruthal, t, c, Gwynedd	1 7	6	—
6000 South Roskear, t, c, Camborne	8 5	0	—